# Mobile Reporting Connector User's Guide

March 2011

All rights reserved. No part of this documentation shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Invensys Systems, Inc. No copyright or patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this documentation, the publisher and the author assume no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein.

The information in this documentation is subject to change without notice and does not represent a commitment on the part of Invensys Systems, Inc. The software described in this documentation is furnished under a license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of these agreements.

© 2011 by Invensys Systems, Inc. All rights reserved.

Invensys Systems, Inc.
10111 Richmond Avenue, Suite 650
Houston, TX 77042 U.S.A.
(713) 344-2610

http://mobilesolutions.wonderware.com

For comments or suggestions about the product documentation, send an e-mail message to ProductDocumentationComments@invensys.com.

All terms mentioned in this documentation that are known to be trademarks or service marks have been appropriately capitalized. Invensys Systems, Inc. cannot attest to the accuracy of this information. Use of a term in this documentation should not be regarded as affecting the validity of any trademark or service mark.

Alarm Logger, ActiveFactory, ArchestrA, Avantis, DBDump, DBLoad, DT Analyst, Factelligence, FactoryFocus, FactoryOffice, FactorySuite, FactorySuite A$^2$, InBatch, InControl, IndustrialRAD, IndustrialSQL Server, InTouch, MaintenanceSuite, MuniSuite, QI Analyst, SCADAlarm, SCADASuite, SuiteLink, SuiteVoyager, WindowMaker, WindowViewer, Wonderware, Wonderware Factelligence, and Wonderware Logger are trademarks of Invensys plc, its subsidiaries and affiliates. All other brands may be trademarks of their respective owners.

# Welcome

This guide describes configuration of the Mobile Reporting Connector application, which displays data points retrieved from configured historian and database sources.

You can view this document online or you can print it, in part or whole, by using the print feature in Adobe Acrobat Reader.

This guide assumes you know how to use Microsoft Windows, including navigating menus, moving from application to application, and moving objects on the screen. If you need help with these tasks, see the Microsoft online help.

## Documentation Conventions

This documentation uses the following conventions:

| Convention | Used for |
|---|---|
| Initial Capitals | Paths and file names. |
| **Bold** | Menus, commands, dialog box names, and dialog box options. |
| `Monospace` | Code samples and display text. |

## Technical Support

Wonderware Technical Support offers a variety of support options to answer any questions on Wonderware products and their implementation.

Before you contact Technical Support, refer to the relevant section(s) in this documentation for a possible solution to the problem. If you need to contact technical support for help, have the following information ready:

- The type and version of the operating system you are using.
- Details of how to recreate the problem.
- The exact wording of the error messages you saw.
- Any relevant output listing from the Log Viewer or any other diagnostic applications.
- Details of what you did to try to solve the problem(s) and your results.
- If known, the Wonderware Technical Support case number assigned to your problem, if this is an ongoing problem.

# Contents

Welcome ..... iii
Documentation Conventions ..... iii
Technical Support ..... iii

Chapter 1 Installation ..... 5
System Requirements ..... 5
Installation ..... 5

Chapter 2 Setup ..... 13
Quick Start ..... 13
Login ..... 14
Adding / Editing Users ..... 15
Adding / Editing User Groups ..... 17
Adding Users to Existing Groups ..... 19
Adding / Editing Data Providers ..... 20
Adding / Editing Reports ..... 22
Report Details ..... 24
Smart Tags ..... 25
Report Tags ..... 26
Report Tabular ..... 29
Tabular Report Example ..... 31
Report Users ..... 32

Report Groups ..... 34
The "About" Screen ..... 36
Additional Settings ..... 36
Backlog ..... 36
Maximum Data Points ..... 37

Appendix A Mobile Reporting Connector and Windows SharePoint Services ..... 39

Appendix B Special Installations ..... 43

Split Installations ..... 43
Changing the Passcode ..... 44
Using a Proxy Server ..... 44

Appendix C Troubleshooting ..... 45

Cannot Access Connector Website ..... 45
Error Code 2104 on Connector Website ..... 46
Reports Not Sent to SmartGlance API ..... 46
Reports Not Published to Mobile Device ..... 47
Notes: Debug Tools and Logs ..... 48

# Chapter 1

# Installation

This chapter covers the system requirements and installation of the Mobile Reporting Connector software.

## System Requirements

**Application Server:**

- Windows Server 2008 SP2 (32 and 64 bit), or Windows 7 (32 and 64 bit)

**Web Server:**

- Windows Server 2003 (32-bit) or Windows Server 2008 (32-bit)
- Internet Information Services (IIS) 5.0 or later

**Client Browser:**

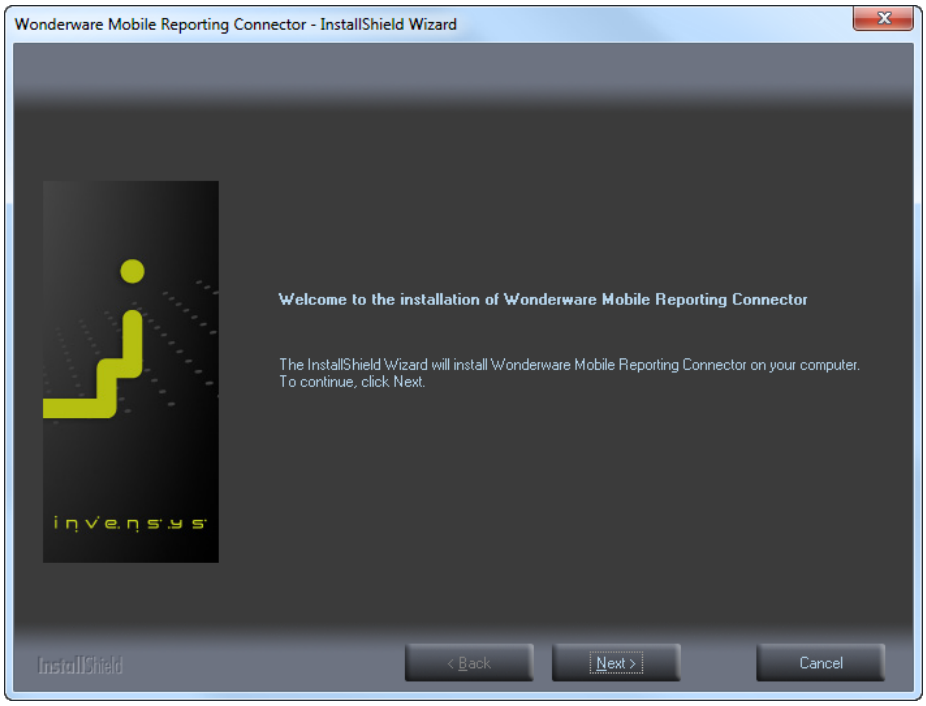
- Internet Explorer (IE) 8.0 or later
- Microsoft Silverlight 3.0 or later

## Installation

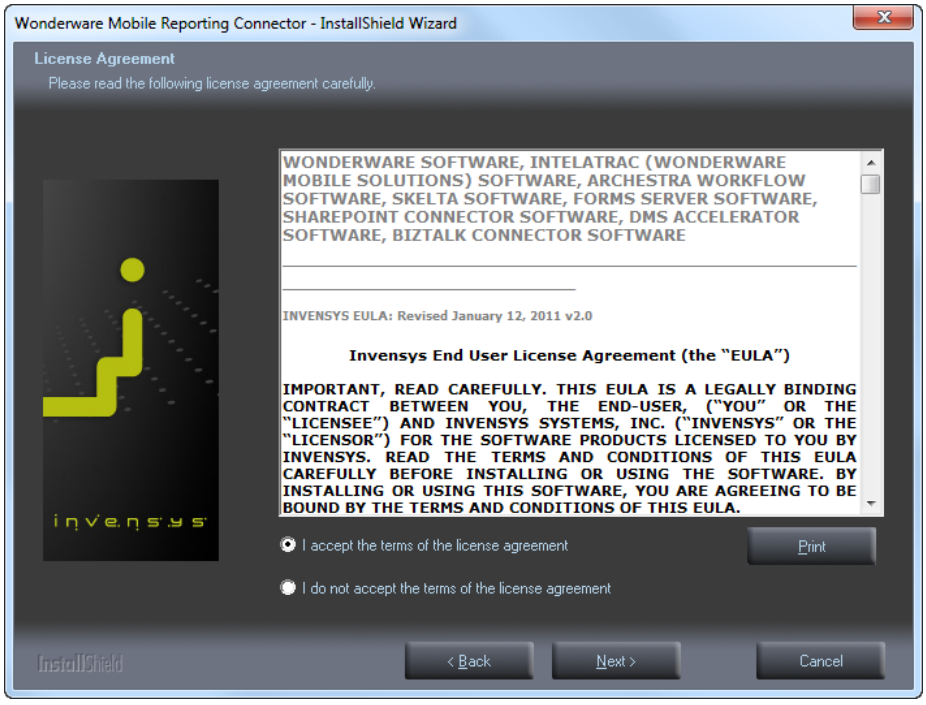
Mobile Reporting Connector installation consists of Web Server, and Application Server, components. These components may be installed to separate computers; but will require additional steps outlined in Appendix B, "Special Installations."

To install the Mobile Reporting Connector service, follow the steps below.

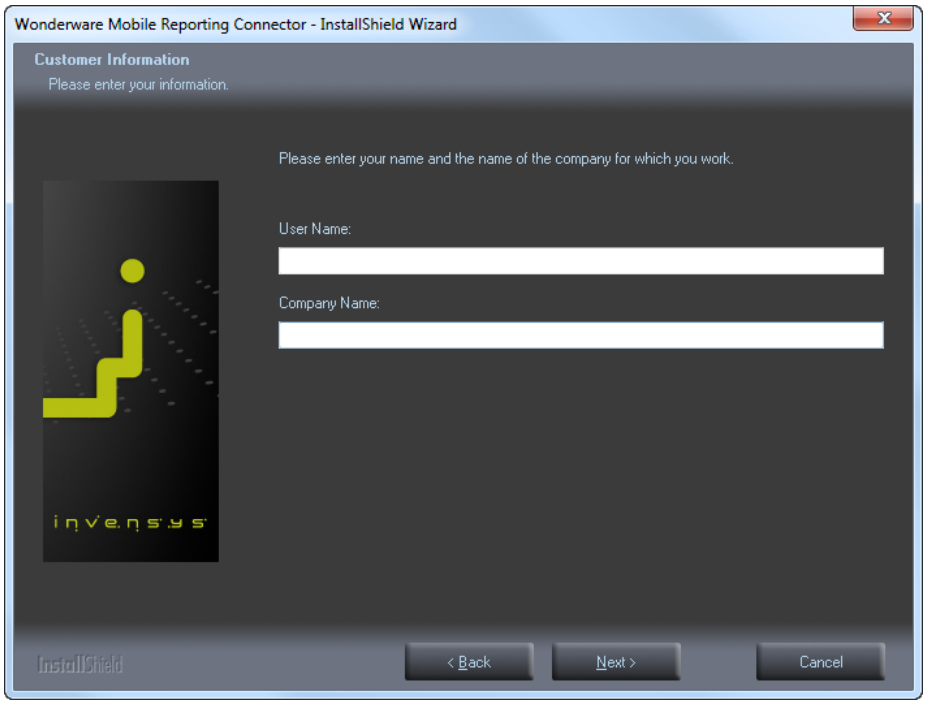
**1** Browse to the CD and run "WWMobileReportingConnectorSetup.exe." When the following screen appears, click "Next."


Wonderware Mobile Reporting Connector - InstallShield Wizard
Welcome to the installation of Wonderware Mobile Reporting Connector
The InstallShield Wizard will install Wonderware Mobile Reporting Connector on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

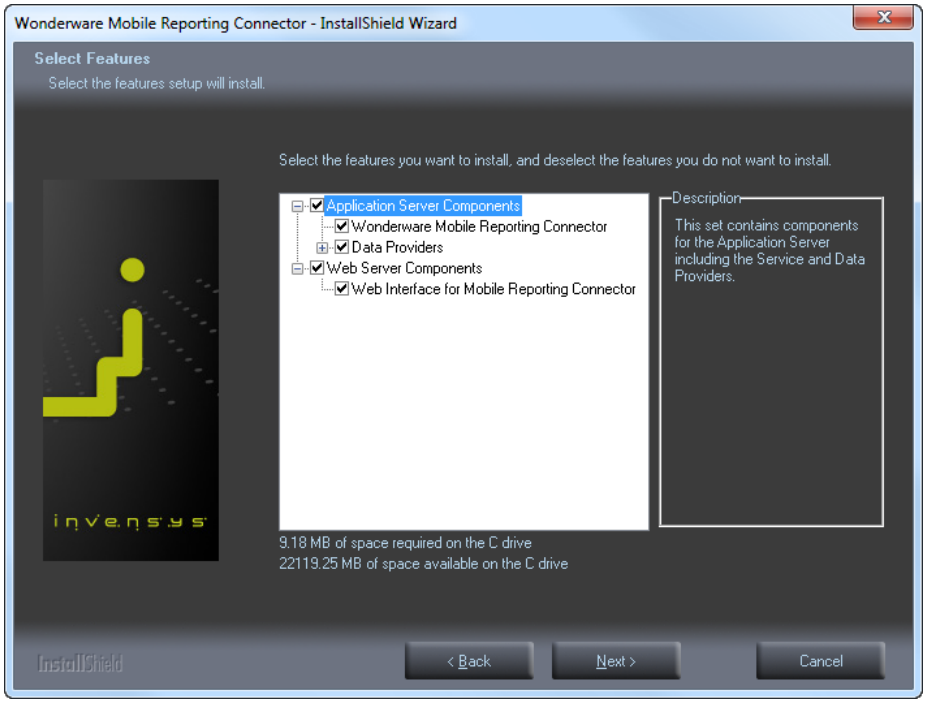
**2** Read the license agreement, and then click the radio button labeled "I accept the terms of the license agreement" (shown below). Then, click "Next" to proceed.


Wonderware Mobile Reporting Connector - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
WONDERWARE SOFTWARE, INTELATRAC (WONDERWARE MOBILE SOLUTIONS) SOFTWARE, ARCHESTRA WORKFLOW SOFTWARE, SKELTA SOFTWARE, FORMS SERVER SOFTWARE, SHAREPOINT CONNECTOR SOFTWARE, DMS ACCELERATOR SOFTWARE, BIZTALK CONNECTOR SOFTWARE
INVENSYS EULA: Revised January 12, 2011 v2.0
Invensys End User License Agreement (the "EULA")
IMPORTANT, READ CAREFULLY. THIS EULA IS A LEGALLY BINDING CONTRACT BETWEEN YOU, THE END-USER, ("YOU" OR THE "LICENSEE") AND INVENSYS SYSTEMS, INC. ("INVENSYS" OR THE "LICENSOR") FOR THE SOFTWARE PRODUCTS LICENSED TO YOU BY INVENSYS. READ THE TERMS AND CONDITIONS OF THIS EULA CAREFULLY BEFORE INSTALLING OR USING THE SOFTWARE. BY INSTALLING OR USING THIS SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS EULA.
I accept the terms of the license agreement
I do not accept the terms of the license agreement
Print
InstallShield
< Back
Next >
Cancel

**3** Enter your User and Company name, and click "Next" to continue.

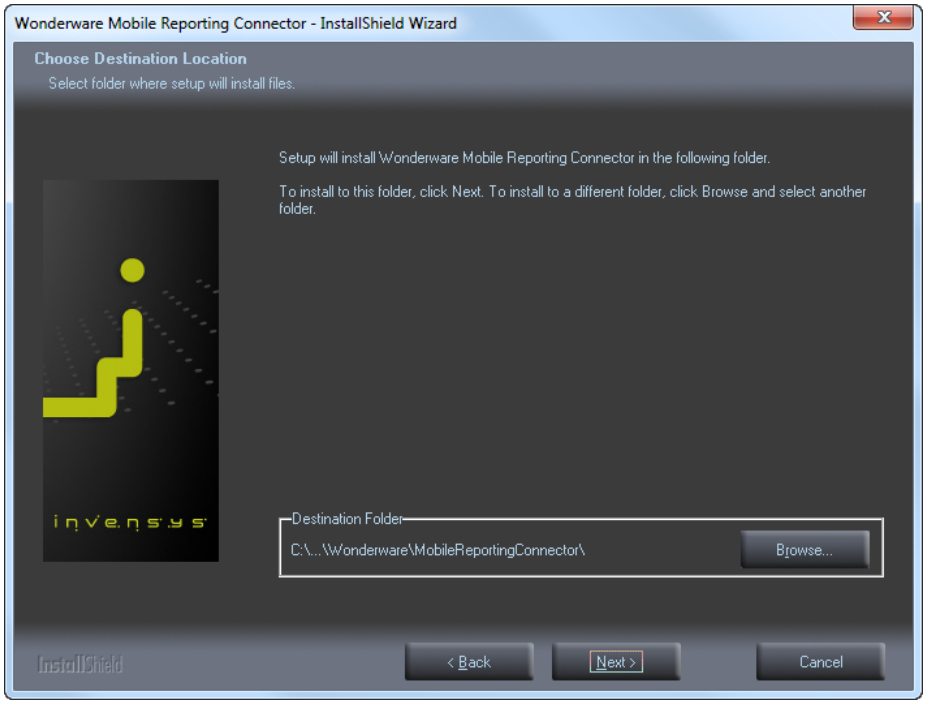

Wonderware Mobile Reporting Connector - InstallShield Wizard
Customer Information
Please enter your information.
Please enter your name and the name of the company for which you work.
User Name:
Company Name:
InstallShield
< Back
Next >
Cancel

**4** Select or de-select the components you wish to install by checking or unchecking their boxes, then click "Next."

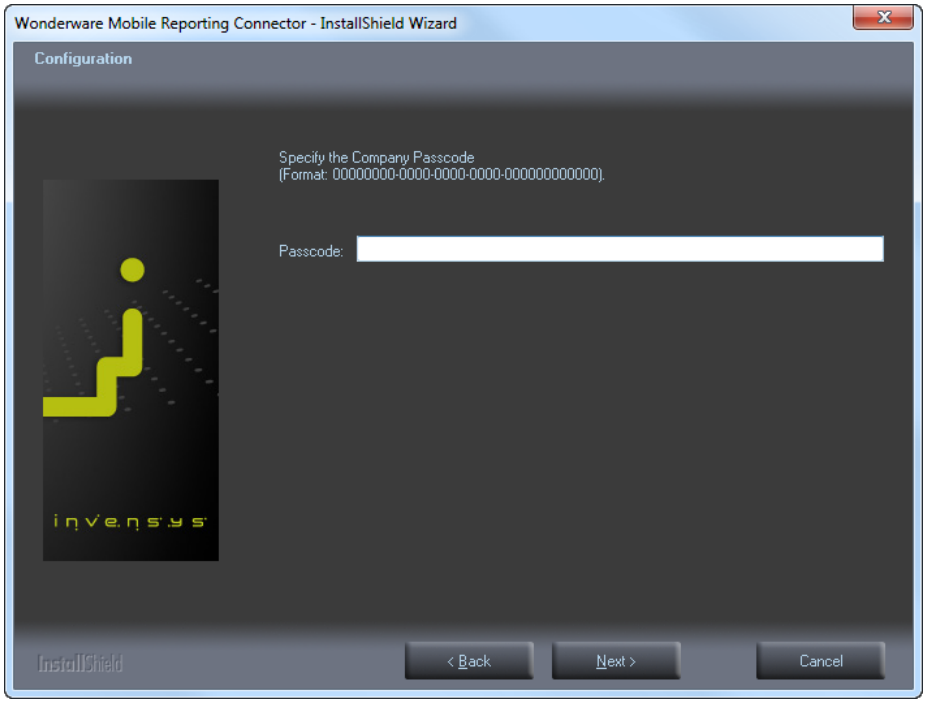

Wonderware Mobile Reporting Connector - InstallShield Wizard
Select Features
Select the features setup will install.
Select the features you want to install, and deselect the features you do not want to install.
Application Server Components
Wonderware Mobile Reporting Connector
Data Providers
Web Server Components
Web Interface for Mobile Reporting Connector
Description
This set contains components for the Application Server including the Service and Data Providers.
9.18 MB of space required on the C drive
22119.25 MB of space available on the C drive
InstallShield
< Back
Next >
Cancel

**Note:** If installing the web server and application server, components to separate computers, you must take an additional step outlined in Appendix B, "Special Installations."

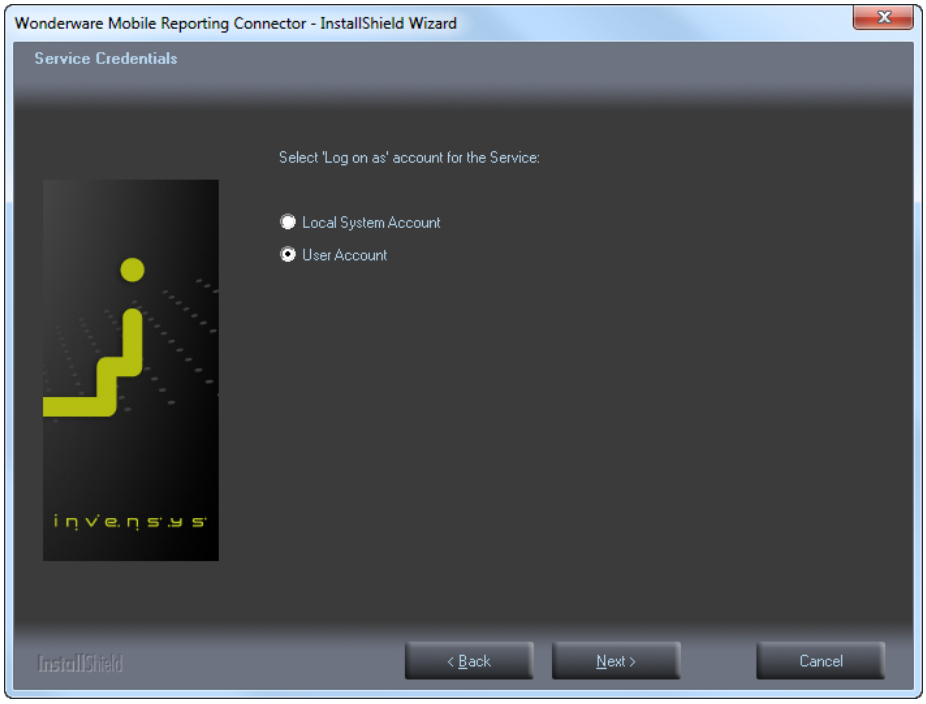
**5** If "Application Server Components" is selected in the "Select Features" portion of the install, the window below appears. Click "Next" to accept the default installation location, or click the "Browse" button to browse to the desired installation location, and then click the "Next" button.


Wonderware Mobile Reporting Connector - InstallShield Wizard
Choose Destination Location
Select folder where setup will install files.
Setup will install Wonderware Mobile Reporting Connector in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\...\Wonderware\MobileReportingConnector\
Browse...
InstallShield
< Back
Next >
Cancel

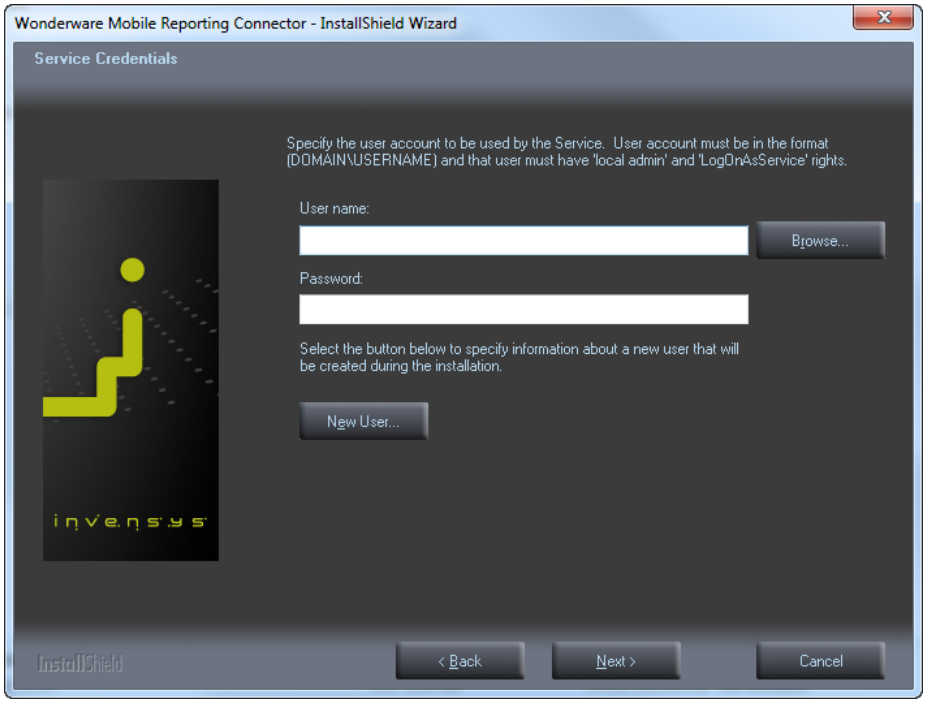
**6** If "Application Server Components" is selected in the "Select Features" portion of the install, the window below appears. Enter the Passcode, and click "Next."



**7** If "Application Server Components" is selected in the "Select Features" portion of the install, the window below appears. Select whether the WW Connector Service will login using a local System account, or a User account.

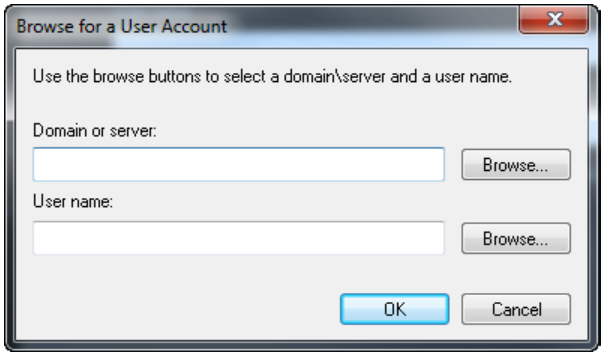



**8** If "User Account" was selected on the last screen, the window below appears. Enter the credentials that the WW Connector Service will use, and click "Next," or click "New User" to create the user account.

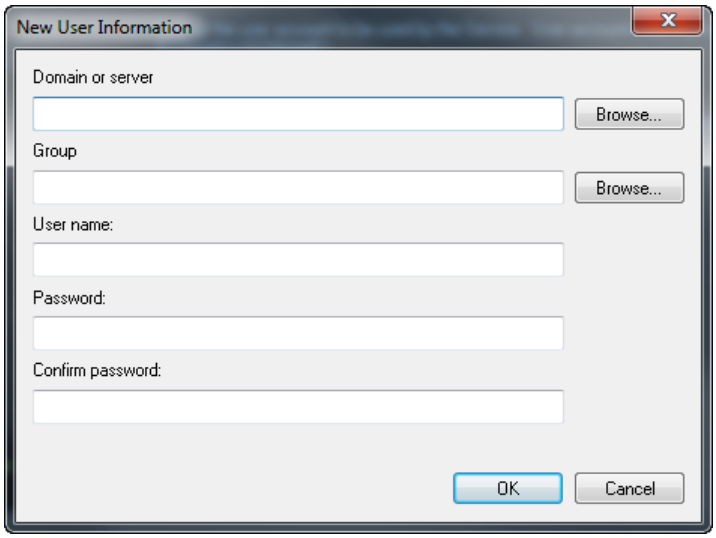

Wonderware Mobile Reporting Connector - InstallShield Wizard
Service Credentials
Specify the user account to be used by the Service. User account must be in the format (DOMAIN\USERNAME) and that user must have 'local admin' and 'LogOnAsService' rights.
User name:
Browse...
Password:
Select the button below to specify information about a new user that will be created during the installation.
New User...
InstallShield
< Back
Next >
Cancel

**Note:** User accounts specified for this purpose must have local admin, and "service as logon" rights.

- Clicking "Browse" presents the following window, allowing you to browse the domain or server for the desired user account.




- Clicking "New User" presents the following window, allowing creation of a user for this purpose, and assigning that User to an existing Group defining its permissions:

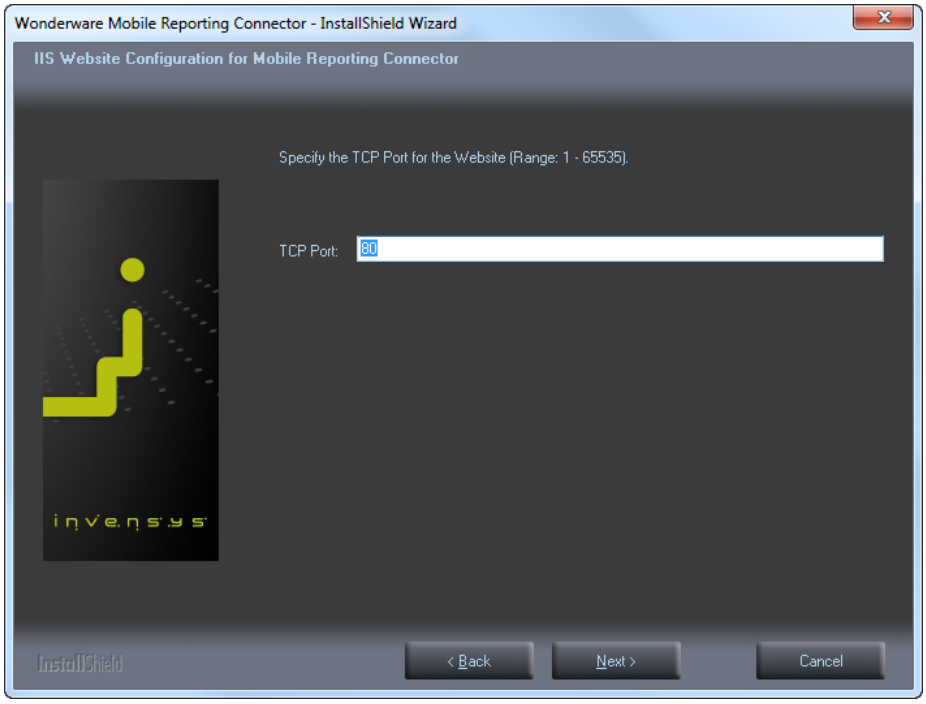



Fill in the new User's information, and click "OK" to continue.

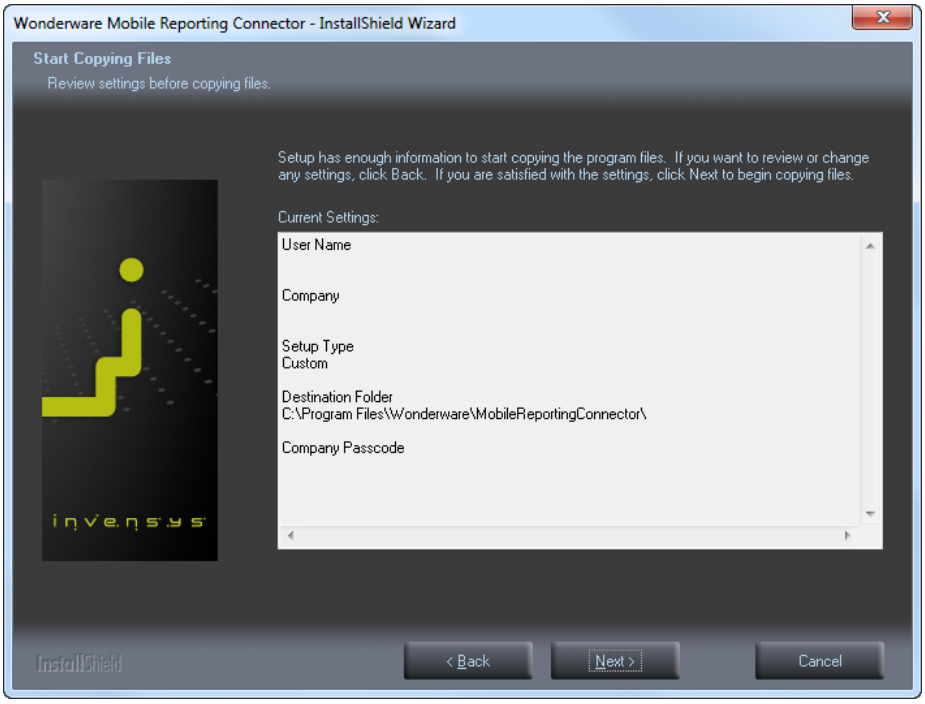
**Important:** Users created through this interface are not assigned the local admin or "service as logon" rights they need. These rights must be added manually after installation and before using the Mobile Reporting Connector.

**Caution:** Validation is not performed on input typed in by the user on the "New User Information" screen. The "Browse" button represents the only method of validation.

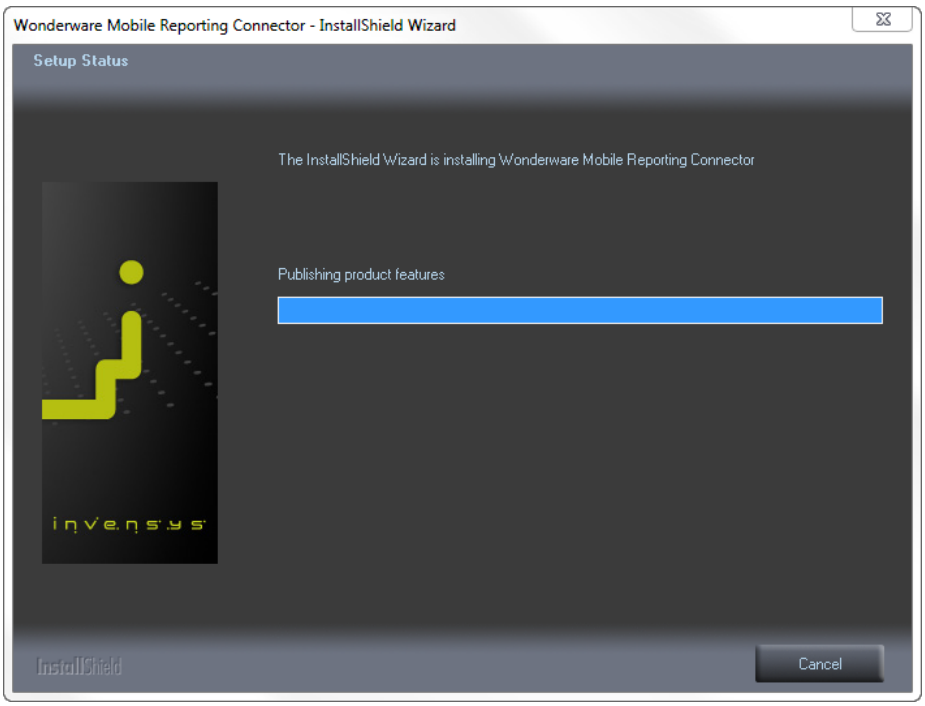
**9** If "Web Server Components" is selected in the "Select Features" portion of the install, the window below appears. Specify the IIS port for the Mobile Reporting Connector configuration web interface (default 80), and click "Next."


Wonderware Mobile Reporting Connector - InstallShield Wizard
IIS Website Configuration for Mobile Reporting Connector
Specify the TCP Port for the Website (Range: 1 - 65535).
TCP Port:
80
InstallShield
< Back
Next >
Cancel

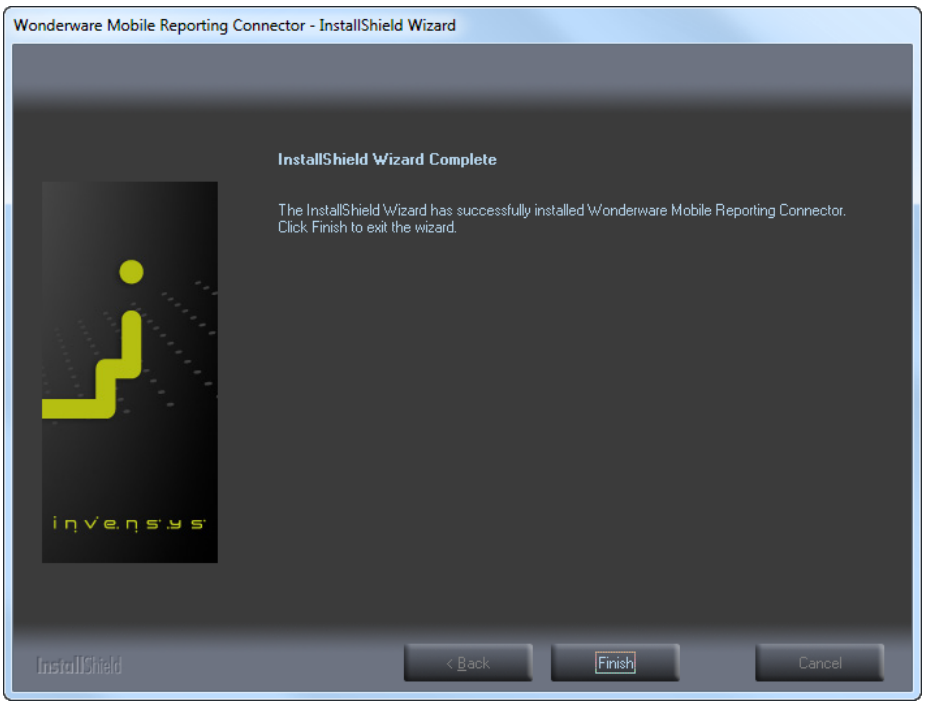
**10** Review the installation settings. If you need to change a value, click "Back" until you reach the appropriate screen, and resume install from that step. Click "Next" when satisfied.


Wonderware Mobile Reporting Connector - InstallShield Wizard
Start Copying Files
Review settings before copying files.
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
User Name
Company
Setup Type
Custom
Destination Folder
C:\Program Files\Wonderware\MobileReportingConnector\
Company Passcode
InstallShield
< Back
Next >
Cancel

**11** Installation will begin:




**12** When the following window appears, installation has completed. Click "Finish."


Wonderware Mobile Reporting Connector - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Wonderware Mobile Reporting Connector. Click Finish to exit the wizard.
InstallShield
< Back
Finish
Cancel

**Tip:** If a warning appears that the Mobile Reporting Connector service could not be started, make sure it is configured to use the proper user credentials, and start it manually.

# Chapter 2

# Setup

This chapter covers configuration of the Mobile Reporting Connector software.

Complete setup of the Mobile Reporting Connector involves the configuration of four entities, described in separate sections of this chapter:

- Users
- User Groups
- Data Providers
- Reports

Setup is performed from within the Mobile Reporting Connector's main Web interface. Connect to its Web address at "http://<machine name>/MobileReportingConnector" (where <machine name> is the name of the computer on which the MobileReporting Connector is installed) and refer to the appropriate sections below for instructions.

## Quick Start

To ensure that the Mobile Reporting connector's various parts work properly and that you can receive a report, one has been created for you entitled "Mixing Batch Process." If you wish to check this report after installation, take the following steps:

1. Create a user account in SmartGlance.
2. Create a corresponding user account (with the same e-mail address) in Mobile Reporting Connector (see "Adding / Editing Users" on page 15).

3 Assign the user account created in Step 2 to the "Mixing Batch Process" report (see "Report Users" on page 32).

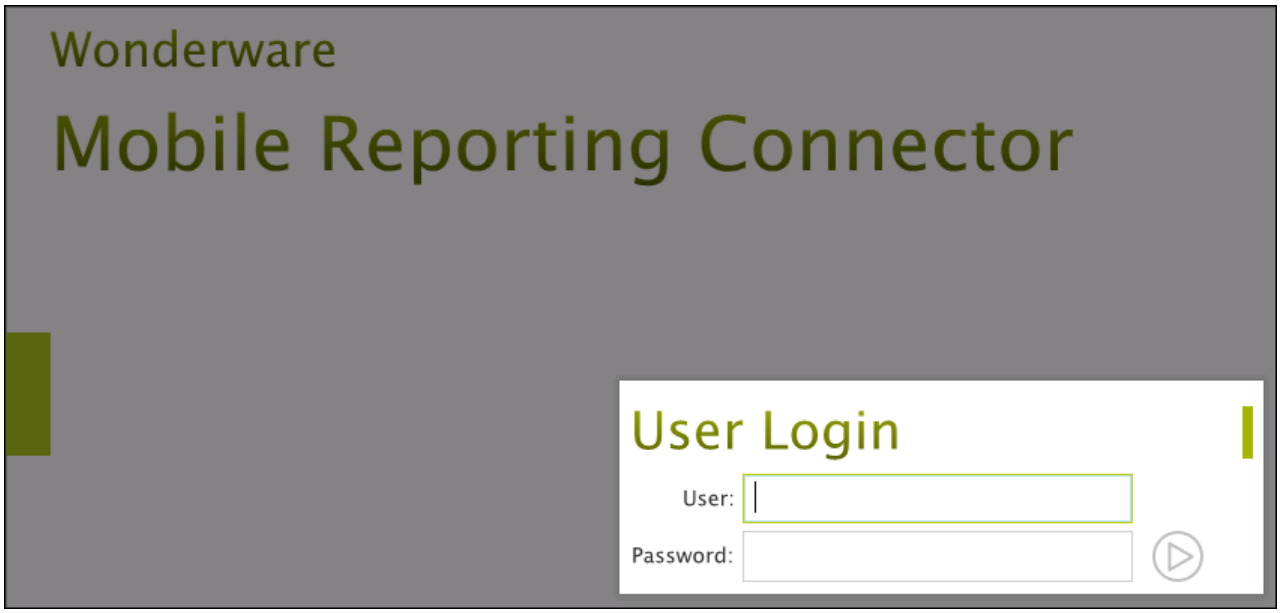
4 Check SmartGlance for the report. Tap the Refresh button to ensure that the report displays.

If the report does not display, please check the appendices to this document for special considerations that may apply to your installation (Appendix A, "Mobile Reporting Connector and Windows SharePoint Services," and Appendix B, "Special Installations,") and for troubleshooting tips (Appendix C, "Troubleshooting,").

# Login

Upon connection to the Mobile Reporting Connector configuration interface, the login screen displays:

**Note:** If Microsoft Silverlight is not yet installed, a Silverlight logo labeled "Install Microsoft Silverlight" will appear. Click the logo and follow the instructions to install it. **Silverlight is required to run this configuration interface.**



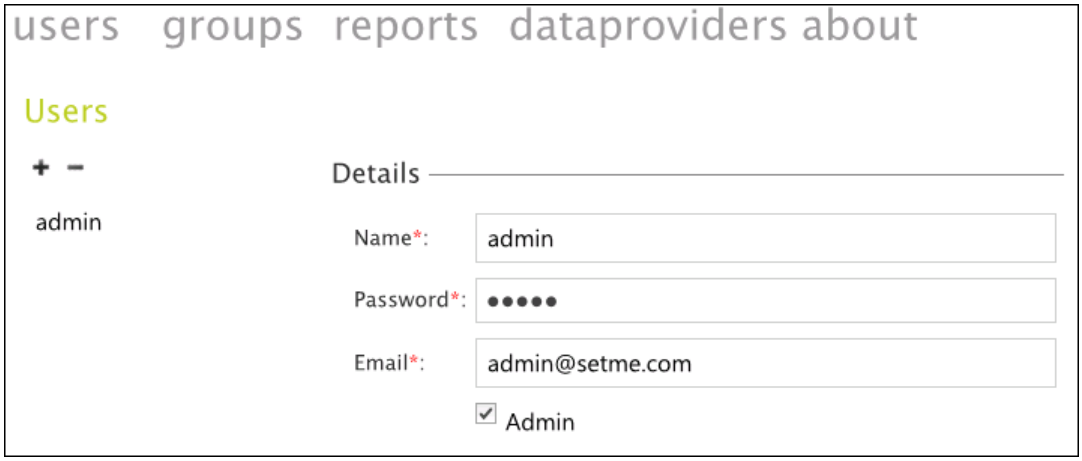

Enter either a previously configured username and password, or begin first-time setup with the default username and password **admin**.

Click the "Play" button ( ), and the main configuration screen appears, with the "Users" configuration option selected by default.

**Important:** The Password field CaSe-SeNsItIvE.

# Adding / Editing Users

At the main screen, click "Users." The "Users" window appears, which allows adding, editing, and removing users.

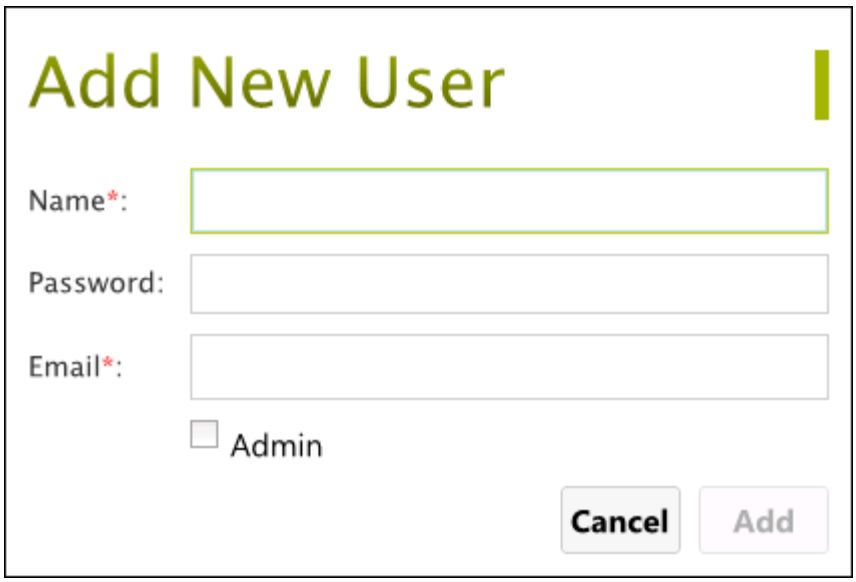



- To remove a user, click the user's name in the list, and then click the "-" button. Click "OK" when prompted to confirm deletion.
- To edit a user, first click the user's name in the list. Edit the Name, Password, and Email fields as desired, and then click the "Update" button.

**Note:** Asterisks denote required fields. Asterisks next to tabs (when configuring Reports) or sections (Users, Groups, etc.) denote unsaved changes in that section.

**Note:** The default "admin" user account's name and "Admin" status cannot be changed, and the user account entry cannot be deleted.

- To add a user, click the "+" button. The "Add New User" dialog box, pictured below, appears.




Fill in the Name, Password, and Email fields as desired, and check the "Admin" box if you wish to give this user account Admin access. Then, click the "Add" button. The "Users" window reappears.

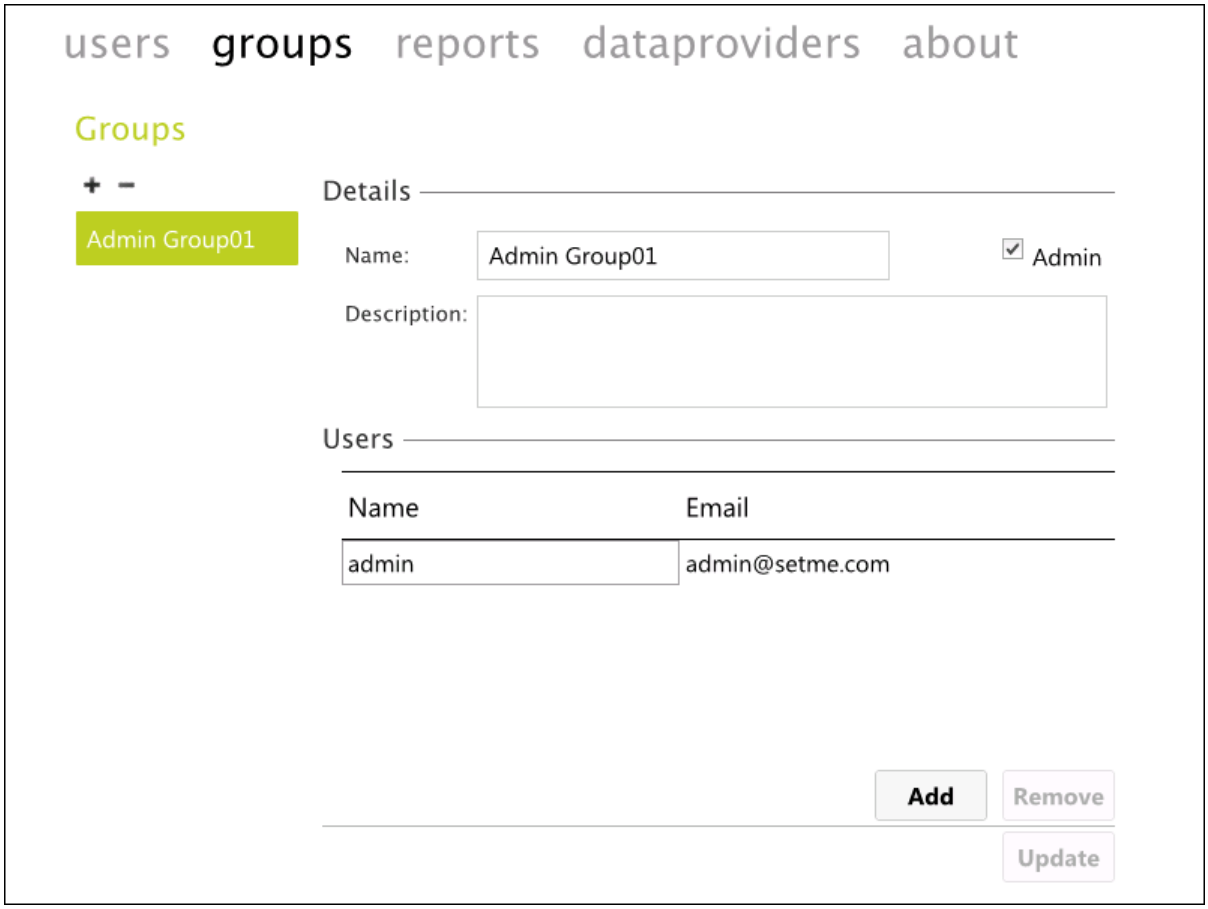
**Note:** The e-mail address and user name must be unique.

**Note:** Asterisks next to entry fields (see above) denote required fields. For example (see above), while Admin user accounts cannot have blank passwords, non-admin user accounts can.

**Note:** Asterisks next to tabs denote unsaved changes.

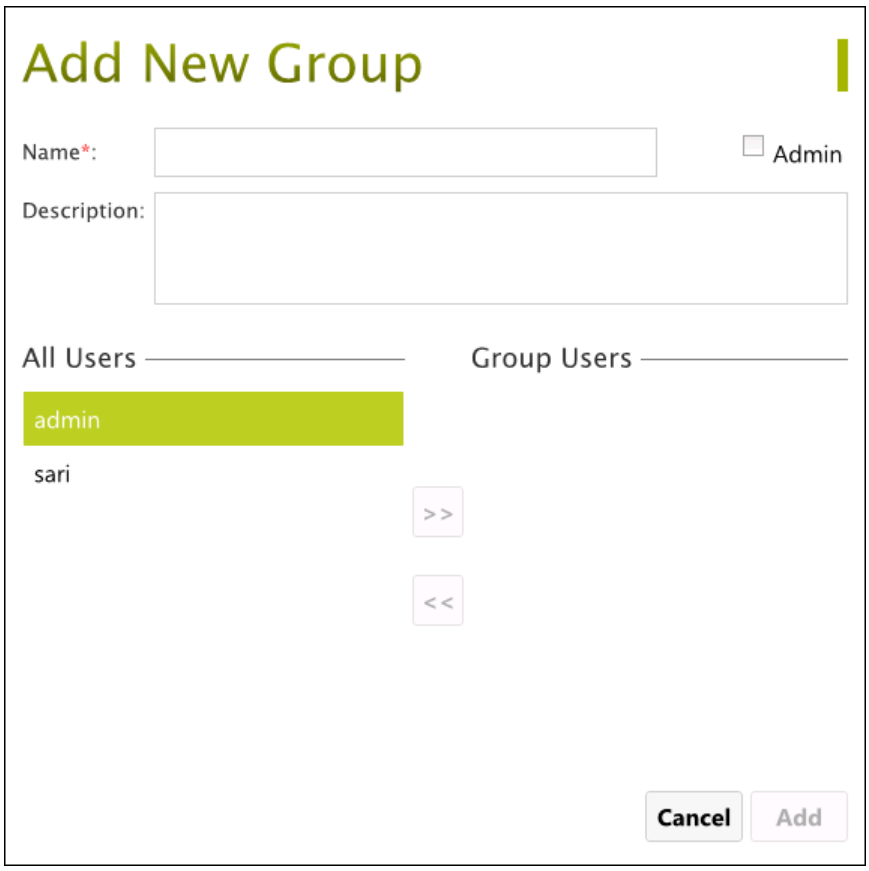
# Adding / Editing User Groups

At the main screen, click "Groups." The "Groups" window appears, which allows adding, editing, and removing user Groups.




- To remove a user from a group, select a user from the "Users" list, and click the "Remove" button below the list. Click "OK" when prompted to confirm removal.
- To edit a group, select a group from the provided list of groups at the left of the window. Edit the Details as desired, and then click the "Update" button.
- To delete a group, select a group from the provided list of groups to the left of the window, and click the "-" button above the list. Click "OK" when prompted to confirm deletion.

- To add a group, click the "+" button above the list of groups (near the top-left corner of the window). The "Add New Group" dialog box appears.




Fill in the Name and Description for the group, and optionally check the "Admin" box if the members of this group will have Admin status.

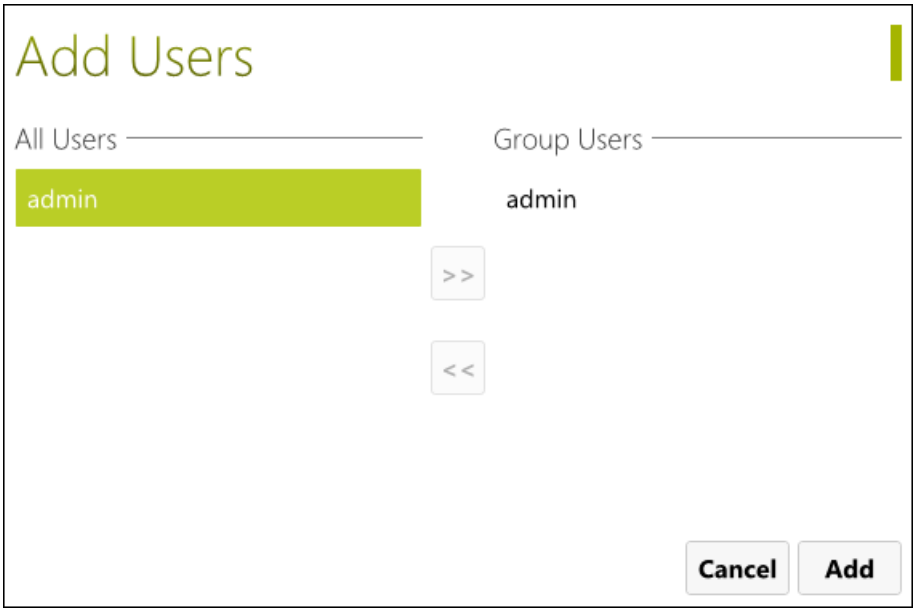
To add users to this new group, select a user from the "All Users" group and click the ">>" button. To remove users from this group, select a user from the "Group Users" list and click the "<<" button.

When finished, click the 'Add" button to create the new User Group. The "Groups" window reappears.

**Note:** Asterisks denote required fields.

# Adding Users to Existing Groups

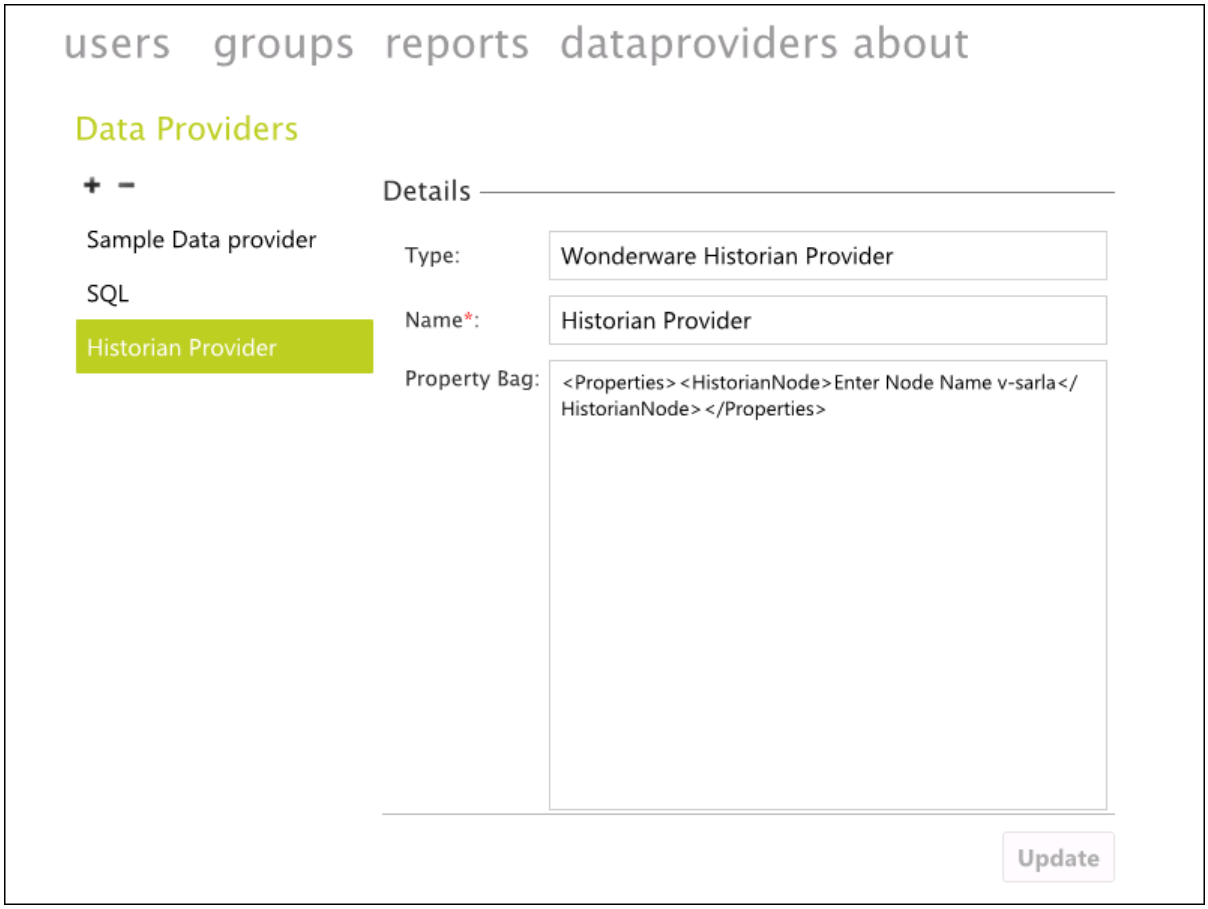
- To add a user to an existing group, select the group from the "Groups" list, and click the "Add" button. The "Add Users" dialog box appears.




Select a user name in the "All Users" box and click the ">>" button to add the selected user to this Group. To remove users from this group, select a user name in the "Group Users" box and click the "<<" button. When finished, click "Add." The "Groups" window reappears.

# Adding / Editing Data Providers

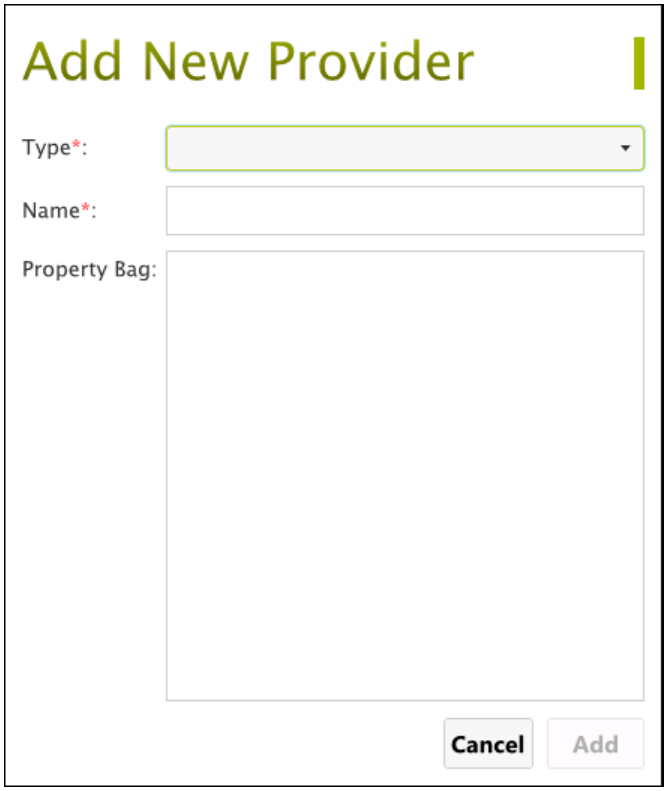
At the main screen, select "DataProviders." The "Data Providers" window appears.




- To delete a Data Provider, select the Data Provider from the list of providers (near the top-left of the screen) and click the "-" button.
- To edit an existing Data Provider, select the Data Provider from the list of providers (near the top-left of the screen) and modify the Type, Name, and Property Bag entries as desired. When finished, click "Update."

**Note:** Asterisks denote required fields.

- To add a Data Provider, click the "+" button above the list of providers (near the top-left of the screen). The "New Data Provider" dialog appears.




Select the Provider "Type" from the dropdown, and enter the "Name" and "Property Bag" values.

**Note:** Asterisks denote required fields.

For the "Property Bag" value:

- For the "Historian" Data Provider type, enter the value of the Historian Node.
- For the "SQL" Data Provider type, enter the values for DataSource (DBServer) and InitialCatalog (DBName). If "IntegratedSecurity" is set to false, input the UserID and Password values as well. (See example below.)

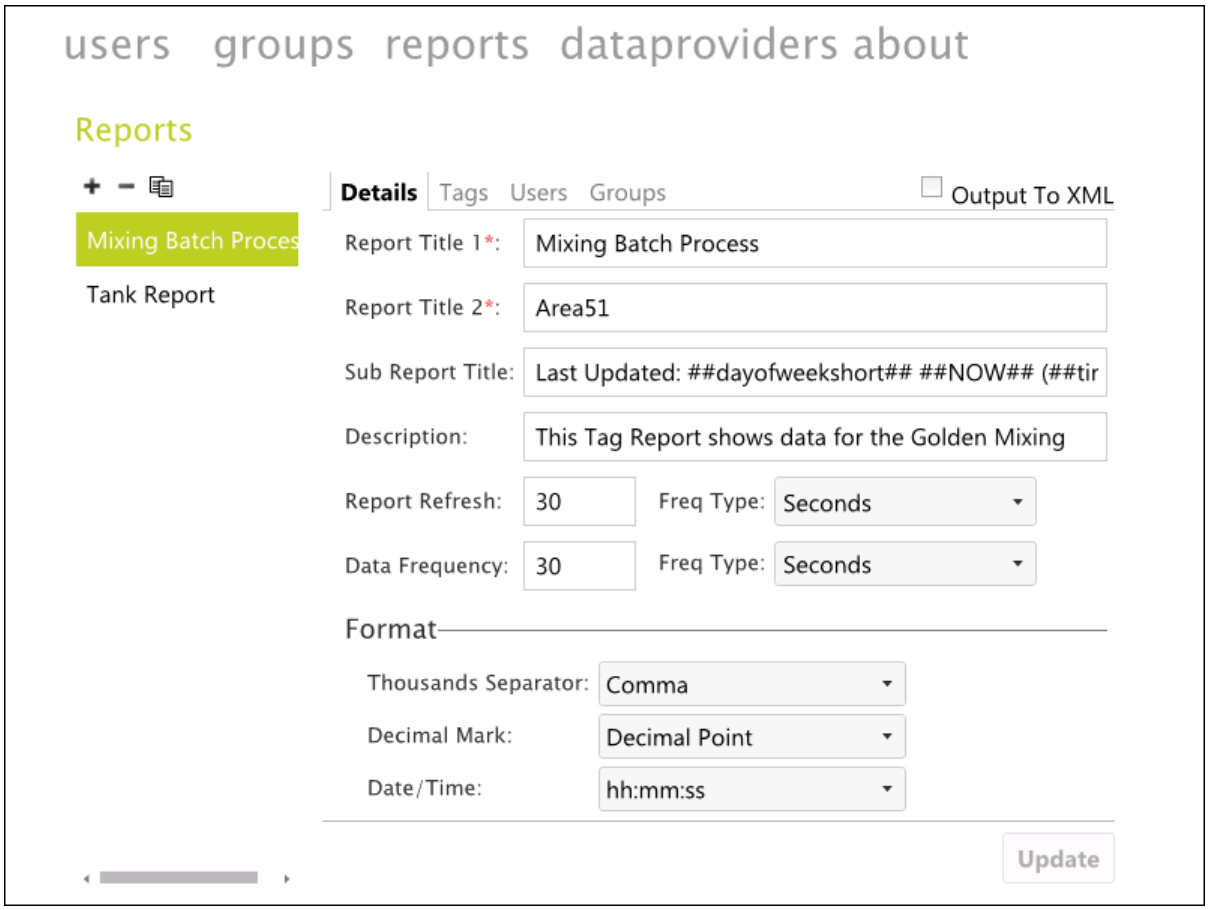
```
<Properties>
   <DataSource>DBServer<DataSource>
   <InitialCatalog>DBName</InitialCatalog>
   <IntegratedSecurity>false<IntegratedSecurity>
   <UserID>UserName</UserID>
   <Password>password</Password>
<Properties>
```

**WARNING! Ensure that the user account used in SQL queries is configured only with the ability to run "SELECT" queries on the databases configured in the provider.**

When finished, click "Add." The "Data Providers" window reappears.

# Adding / Editing Reports

At the main screen, click "Reports." The "Reports" window appears, which allows adding, editing, and removing Reports.



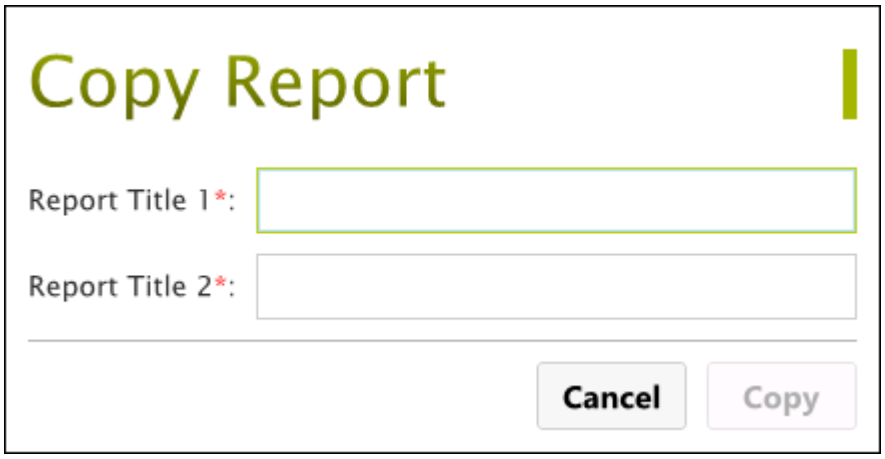

- To edit a Report, first select the report listing in the list of Reports (near the top-left corner of the window). Edit the values in the desired tab as described in the sections below, and then click the "Update" button when finished.

**Note:** Asterisks denote required fields.

- To delete a Report, select the report listing in the list of Reports (near the top-left corner of the window) and click the "-" button above the list.

**Tip:** To aid in troubleshooting, you may check the "Output to XML" box and then click "Update." This will cause the Mobile Reporting Connector service to save timestamped XML debug output files to an "output" subdirectory within the Application Server's installation directory. **If you enable this function, be sure to disable it when you are done.**

- To copy a Report, click the "copy" icon ( ). The following dialog will appear:



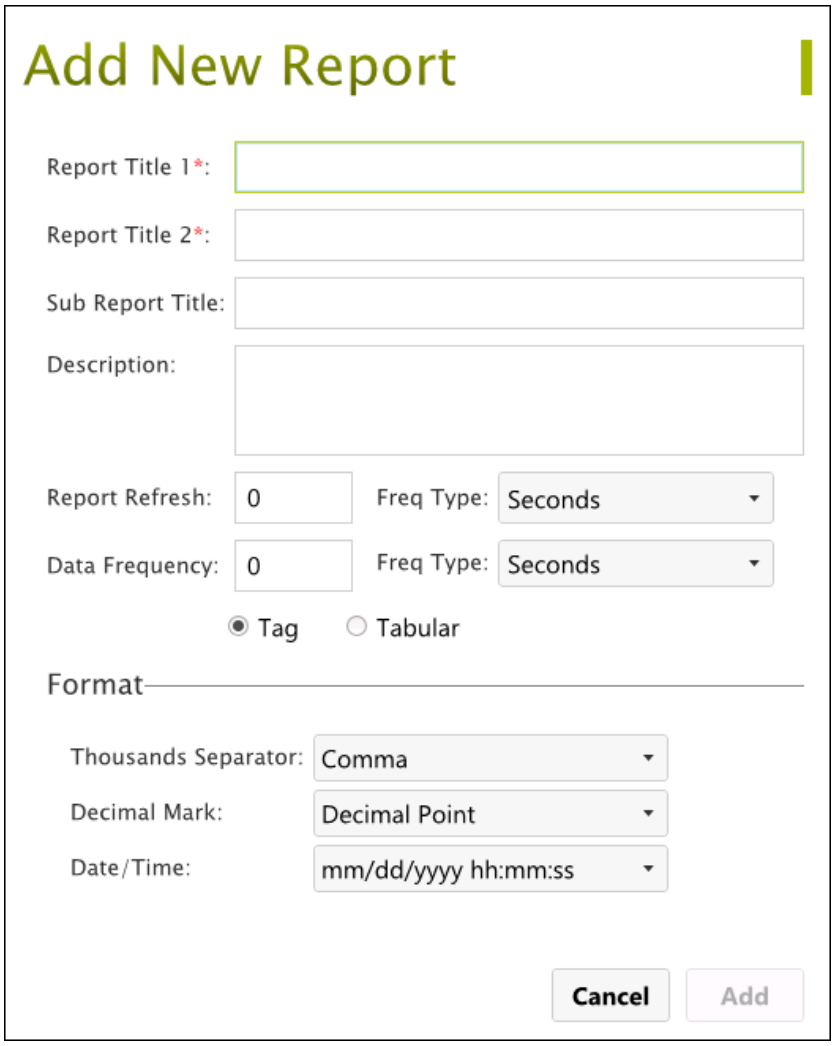

Enter the "Report Title 1" and "Report Title 2" fields, and click "Copy" to make a copy of this Report.

**Note:** The Title fields must be unique among other configured Reports.

**Note:** Asterisks denote required fields.

# Report Details

- To add a Report, begin by clicking the "+" button above the list of Reports (near the top-left corner of the window). The "Add New Report" dialog appears.




- Enter the desired Report Titles, Sub-Report Title, and Description to assist in this Report's identification.

**Note:** The Title fields must be unique among other configured Reports.

**Note:** Asterisks denote required fields.

**Tip:** "Smart Tags" may be included in the Sub-Report Title as detailed below in the section "Smart Tags."

- Enter the Report Refresh, which represents the rate at which this report will update its information from the Provider. Select the Frequency Type (Seconds, Minutes, Hours, Days, or Weeks) that the Report Refresh value represents.
- Select via the provided radio buttons whether this will be a "Tag" (Historian-driven) or "Tabular" (SQL-driven) report.

**Note:** For "Seconds," the minimum value is 30 and maximum value is 1000. For all others, the range is 1 to 1000.

- Enter the Data Frequency value (between 1 and 1000), which represents intervals of data input to the Provider. Next, select the Frequency Type (Seconds, Minutes, Hours, Days, or Weeks).

**Caution:** Exercise caution when setting the "Report Refresh" (RR) and "Data Frequency" (DF) values, as the number of data points retrieved every "Report Refresh" interval equals ((RR / DF)*# of Tags). For example, in a report with a RR of 10 minutes, a DF of 30 seconds, and 30 tags, the service is attempting to fetch 600 tags each time it contacts the Historian. See "Reports Not Sent to SmartGlance API" on page 46 for more information.

- Select desired options for Thousands Separator, Decimal Mark, and Date/Time, formats.
- When finished, click the "Add" button.

The Report will be added to the list of available Reports. Follow the sections below to complete the Report's configuration.

## Smart Tags

The "Smart Tags" listed below may be inserted into a Report's "Sub-Report Title" field; when viewed on the mobile device, the Smart Tags display as shown in the "Example" column.

**Note:** Examples shown below are for March 2nd, 2011, at 4:15:30 PM, in the Central Timezone (UTC/GMT-0600).

| Smart Tag | Example |
|---|---|
| ##YEAR## | 2011 |
| ##YEARYY## | 11 |
| ##MONTH## | Mar |
| ##MONTHmm## | 3 |
| ##DAYOFWEEK## | Wednesday |
| ##DAYOFWEEKSHORT## | Wed |

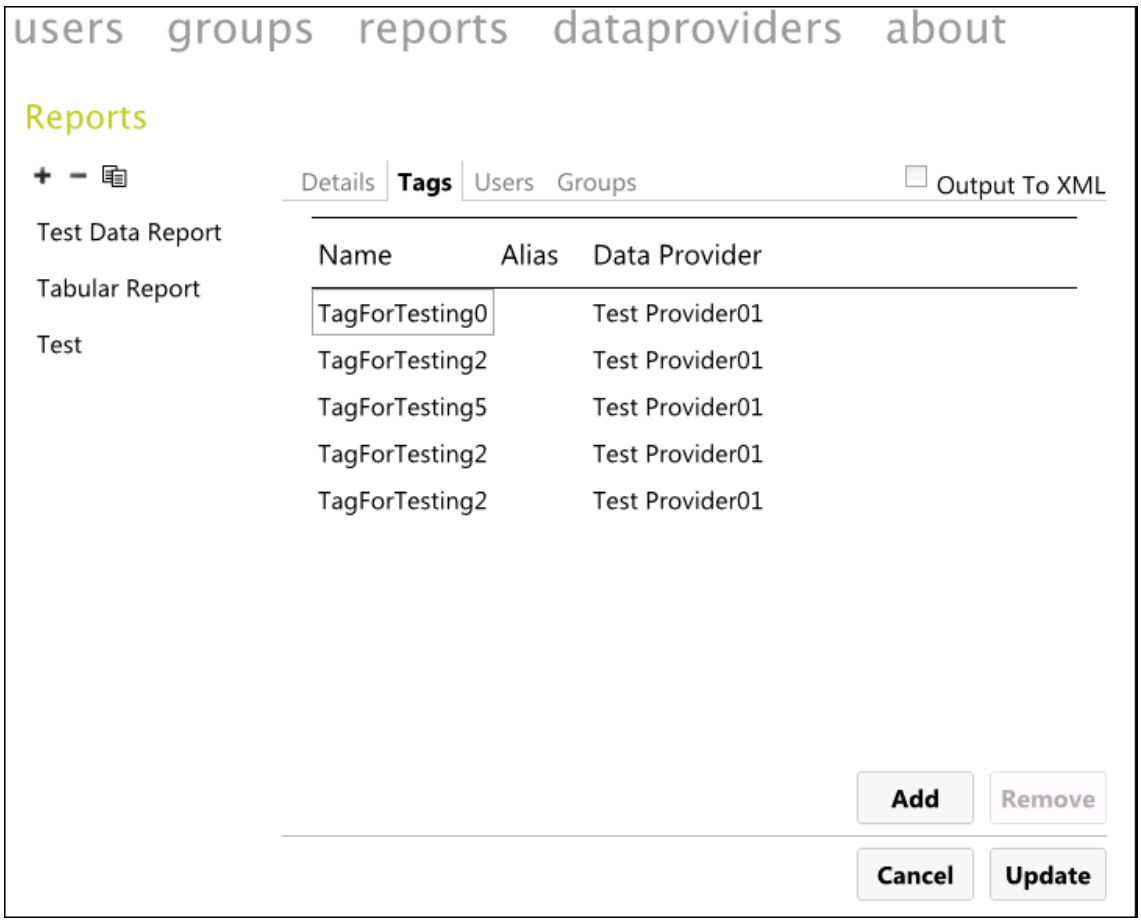
| Smart Tag | Example |
|---|---|
| ##DAY## | 2 |
| ##HOUR## | 4 |
| ##HOUR24## | 16 |
| ##MINUTE## | 15 |
| ##SECOND## | 30 |
| ##AMPM## | pm |
| ##TIMEZONE## | -6:00 |
| ##NOW##[1] | 3/2/2011 4:15:30 PM |
| ##TODAY##[1] | 3/2/2011 |
| ##YESTERDAY##[1] | 3/1/2011 |

[1] Display format depends on Application Server's Regional settings for date display format. Format shown in "Example" column corresponds to United States settings.

## Report Tags

To configure this Report to retrieve Tags, select the desired Report from the list of Reports, and click the "Tags" tab. The list of Tags currently configured within the selected Report appears:

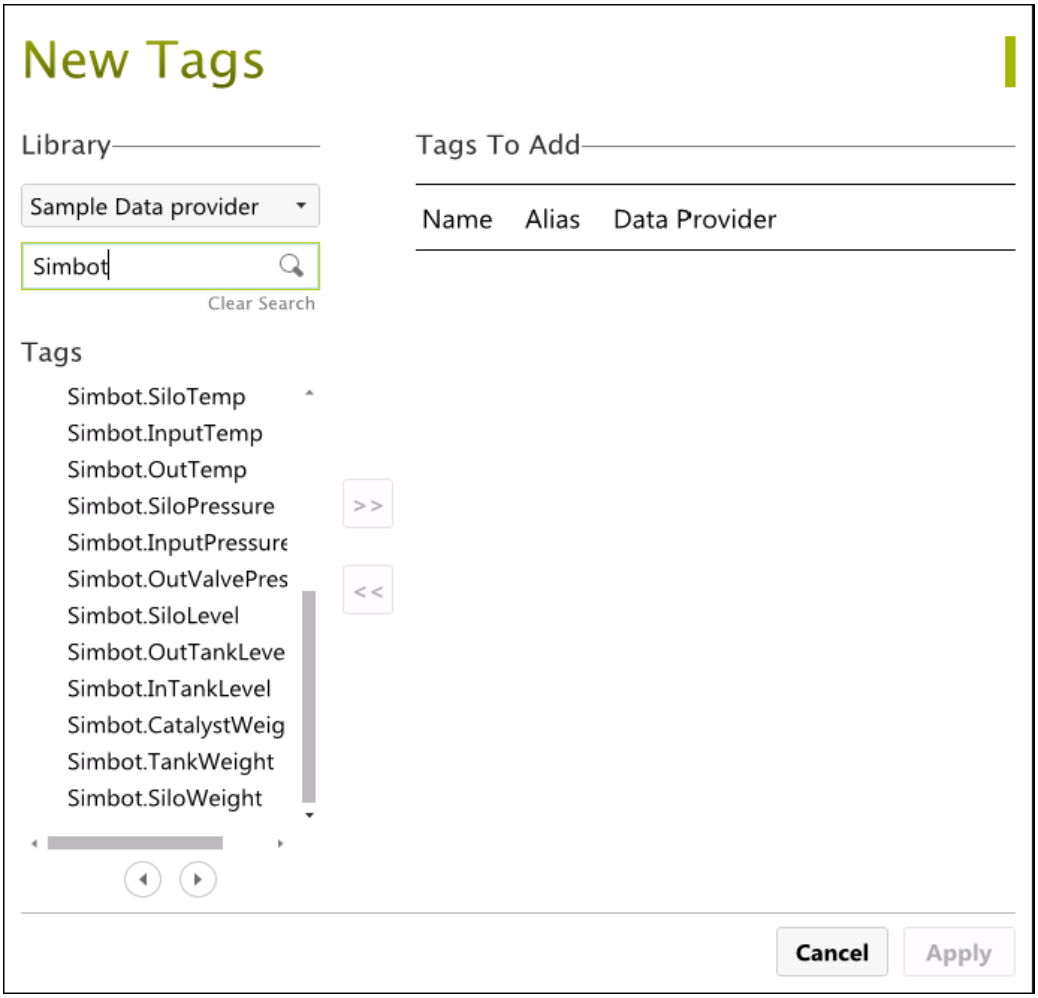
**Note:** This tab is only available if the selected report is of the "Tag" (Historian-driven) type. If the selected report is of the "Tabular" (SQL-driven) type, this tab is labeled "Tabular" (see "Report Tabular" on page 29.)




- To remove Tags from this Report, select the Tag from the provided list, and click the "Remove" button.

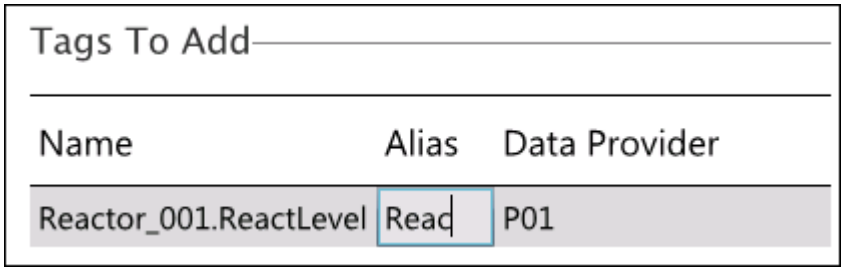
**Tip:** To aid in troubleshooting, you may check the "Output to XML" box and then click "Update." This will cause the Mobile Reporting Connector service to save timestamped XML debug output files to an "output" subdirectory within the Application Server's installation directory. **If you enable this function, be sure to disable it when you are done.**

- To add Tags to this Report, click the "Add" button. The "Add New Tag" dialog appears:




- Select the configured Data Provider from the drop-down list. A partial list of tags displays in alphabetical order.
- Enter a text string identifying the Tag you wish to add, and click the magnifying glass ( ) to search for Tags containing the described text.
- Select a Tag name in the "Tags" list and click the ">>" button to add the selected Tag to this Report. To remove Tags from this Report, select a Tag name in the "Tags to Add" list and click the "<<" button. When finished, click "Apply." The Report's "Tags" tab reappears.

- Optionally, you may change the Alias of the Tag when adding it by clicking in the "Alias" space and typing the desired Alias, as shown below.



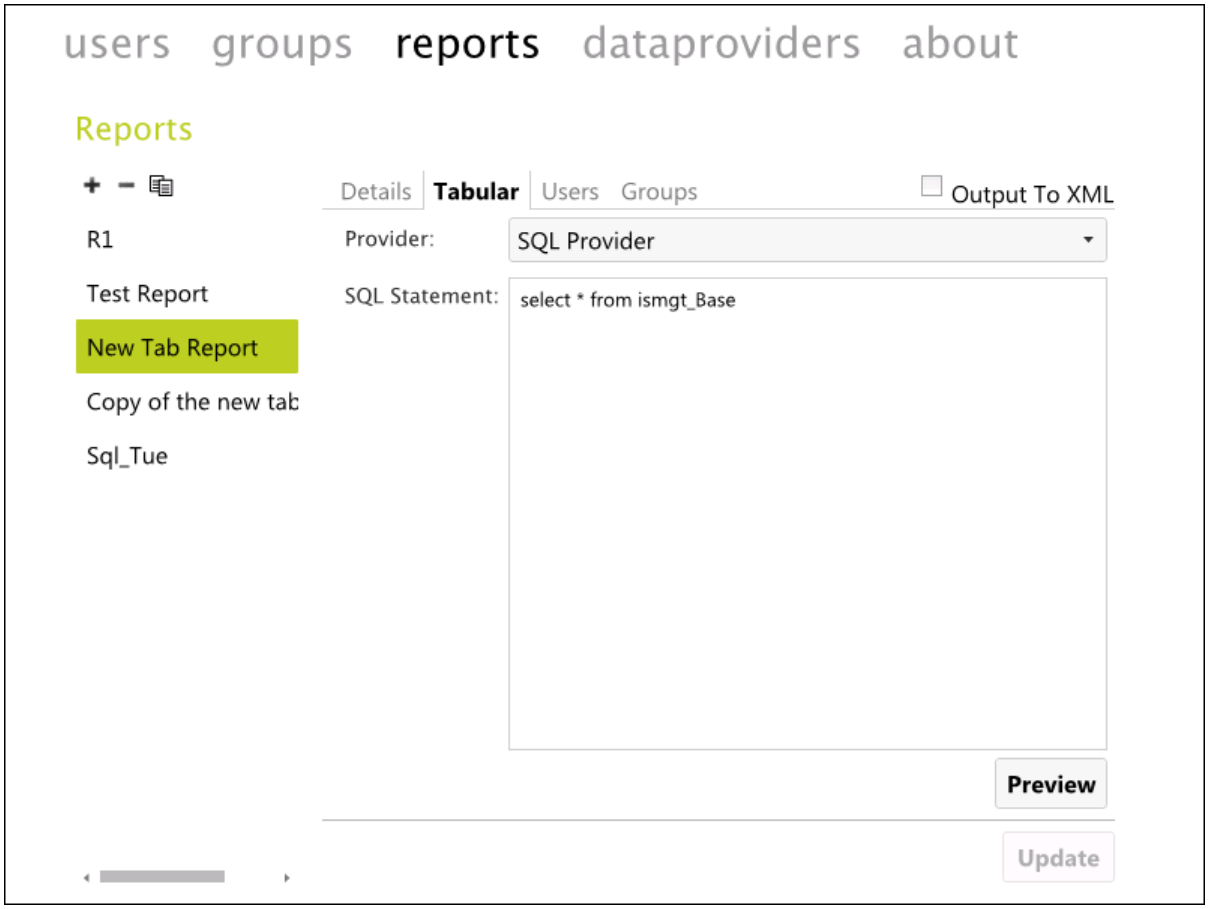

- Click Apply.

Repeat this process as desired to add additional tags, and click the "Apply" button when finished.

## Report Tabular

To configure this Report to retrieve Tabular data, select the desired Report from the list of Reports, and click the "Tabular" tab. The currently configured datum within the selected Report appears:

**Note:** This tab is only available if the selected report is of the "Tabular" (SQL-driven) type. If the selected report is of the If "Tag" (Historian-driven) type, this tab is labeled "Tags" (see "Report Tags" on page 26.)




To configure this Tabular data item, select the desired, configured Tabular Provider from the "Provider" drop-down. Then, enter either a simple SQL (or XML-formatted, if necessary - see the example below) SELECT statement in the "SQL Statement:" box. When finished, click "Update."

**Note:** Though modification of the database is not permitted through this interface, it is highly recommended that the user account associated with SQL requests be given read-only access only.

**Tip:** You may click the "Preview" button to check a Tabular data item's SQL statement for a Tabular data item. The configuration interface will produce the "Query Preview" window, displaying the data the SQL statement has fetched.

**Tip:** To aid in troubleshooting, you may check the "Output to XML" box and then click "Update." This will cause the Mobile Reporting Connector service to save timestamped XML debug output files to an "output" subdirectory within the Application Server's installation directory. **If you enable this function, be sure to disable it when you are done.**

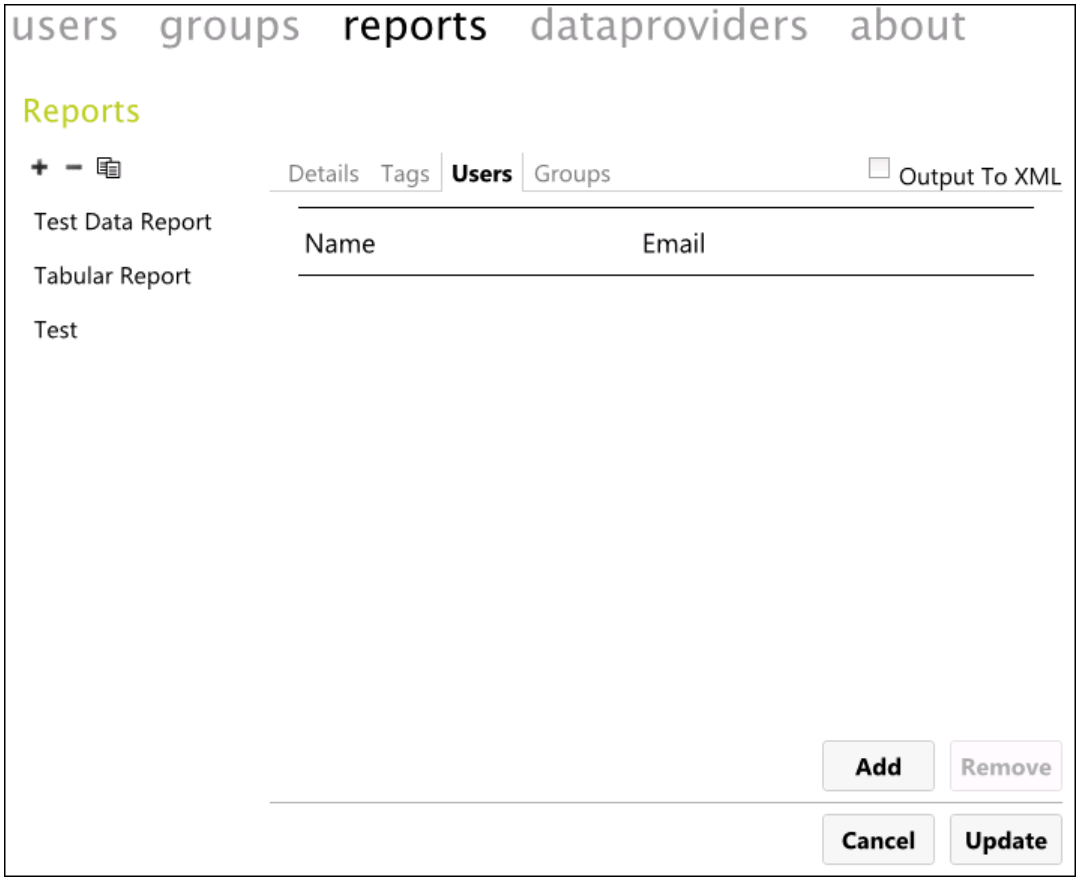
## Tabular Report Example

The following example of a Tabular data item suppresses display of the last column produced by the Select statement, instead placing that value as this datum's "Description."

```
<Request>

<SelectStatement>

SELECT [NAME]
    ,[LOCKED_BY]
    ,[LOCKED_WHEN],
    ' last modified: ' + convert(varchar,[LASTMODIFIED], 0) + CHAR(13)+ [DESCRIPTION] as
buttonDescription

FROM [ISMGT_BASE]

</SelectStatement>

<LastColumnAsDescription>true</LastColumnAsDescription>

</Request>
```

# Report Users

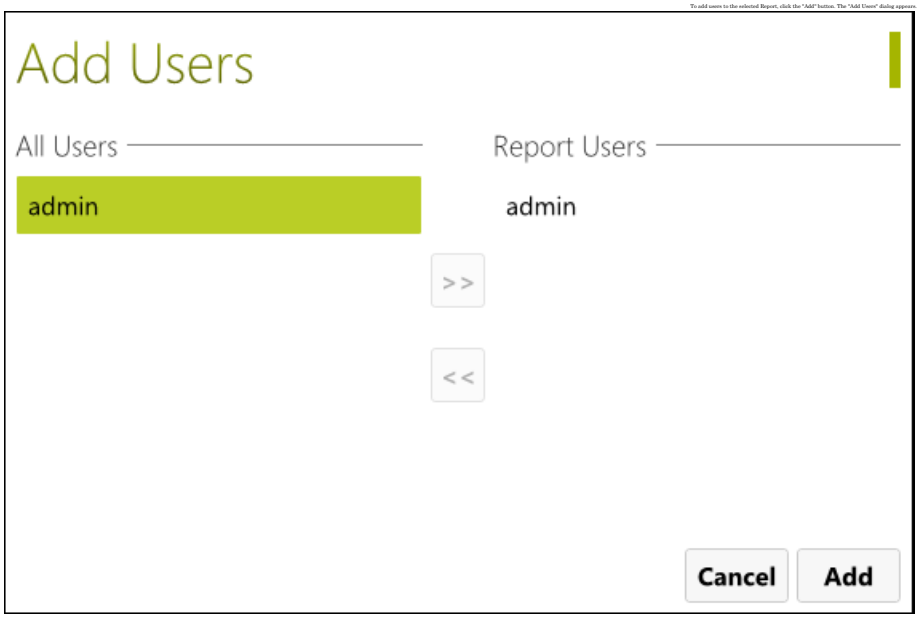
To add Users to a report (enabling individual User accounts to access the report), select the desired Report from the provided list, and then click the "Users" tab. The list of User accounts currently associated with the Report appears:




- To remove users from the selected Report, select the User from the provided list, and click the "Remove" button.

**Tip:** To aid in troubleshooting, you may check the "Output to XML" box and then click "Update." This will cause the Mobile Reporting Connector service to save timestamped XML debug output files to an "output" subdirectory within the Application Server's installation directory. **If you enable this function, be sure to disable it when you are done.**

- To add a User to the selected Report, click "Add." The "Add Users" dialog box appears.

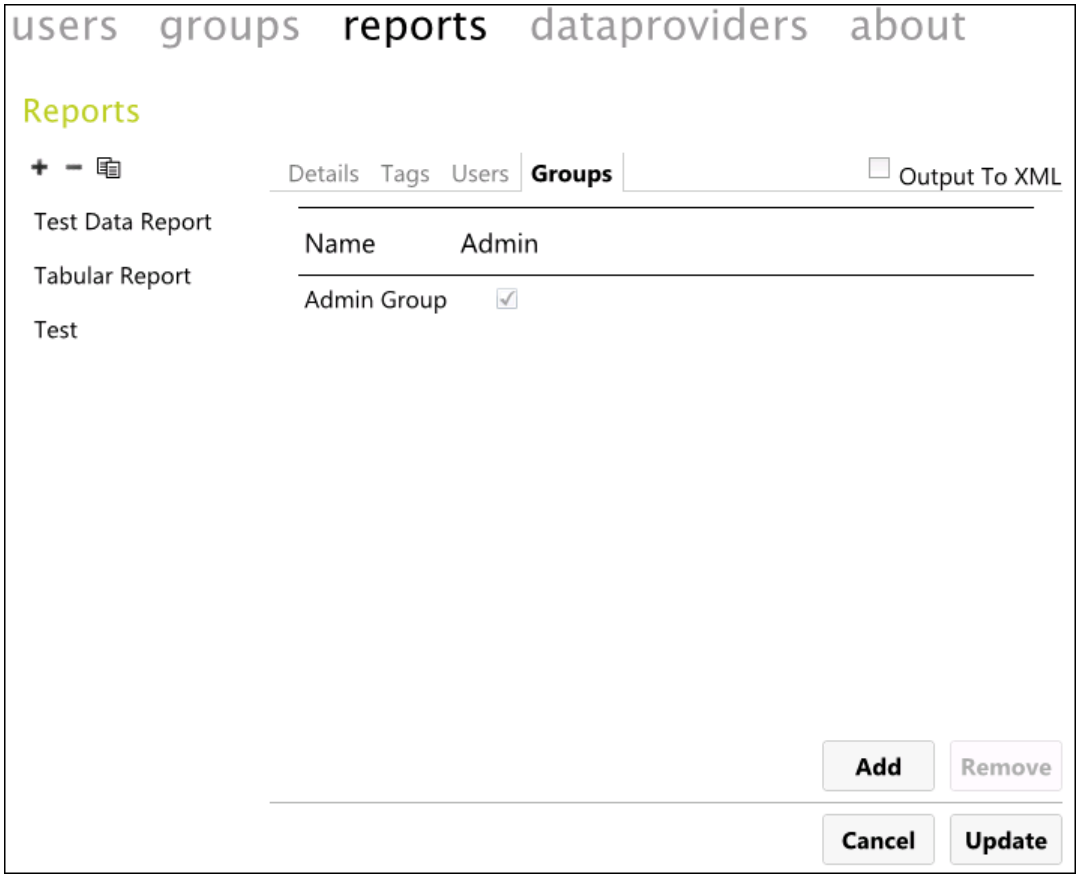



Select a user name in the "All Users" box and click the ">>" button to add the selected user to this Report. To remove users from this Report, select a user name in the "Report Users" box and click the "<<" button. When finished, click "Add." The "Reports" window reappears.

**Important:** Click "Update" on the "Reports" window to save changes.

# Report Groups

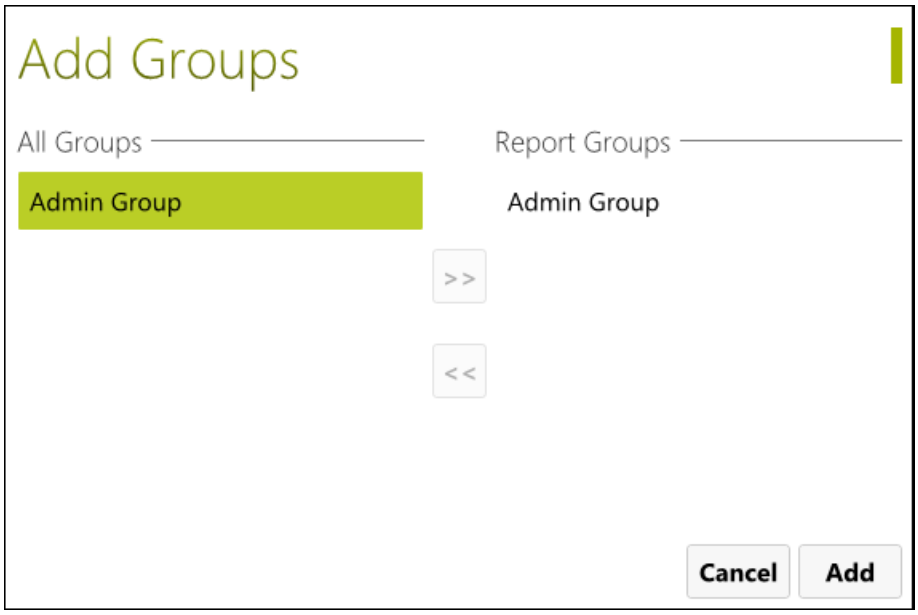
To add User Groups to a report (enabling Users who are a member of that User Group to access the report), select the desired Report from the provided list, and then click the "Groups" tab. The list of User Groups currently associated with the Report appears:




- To remove Groups from the selected Report, select the desired Group and click "Remove."

**Tip:** To aid in troubleshooting, you may check the "Output to XML" box and then click "Update." This will cause the Mobile Reporting Connector service to save timestamped XML debug output files to an "output" subdirectory within the Application Server's installation directory. **If you enable this function, be sure to disable it when you are done.**

- To add Groups to the selected Report, click "Add." The "Add Groups" dialog box appears:




Select a Group name in the "All Groups" list and click the ">>" button to add the selected Group to this Report. To remove Groups from this Report, select a Group name in the "Report Groups" list and click the "<<" button. When finished, click "Add." The "Reports" window reappears.

**Important:** Click "Update" on the "Reports" window to save changes.

# The "About" Screen

Access the "About" screen from the main interface by clicking "About:"

This screen displays versioning information regarding Mobile Reporting Connector.

# Additional Settings

Additional settings not exposed in the UI are available by editing configuration files.

## Backlog

If no report was sent to the SmartGlance application (e.g. if Mobile Reporting Connector was shut down, or the data provider was unavailable), Mobile Reporting Connector will by default reach an additional 5 minutes into the past when retrieving report data. To modify this setting, follow the instructions below.

**1** Shut down the “Wonderware Mobile Reporting Connector Service.”

2 Open the "IOM.Schedules.Config" file, located in the directory to which the Application Server was installed (by default, "C:\Program Files\Wonderware\MobileReportingConnector"), in a text editor (like Notepad).

3 Find the following sections:

```
<BackLogCatchUpTime>5</BackLogCatchUpTime>
```

```
<UnitForBackLogCatchUpTime>Minutes</UnitForBackLogCatchUpTime>
```

4 Modify the settings as desired. UnitForBackLogCatchUpTime is either **Seconds**, **Minutes**, **Hours**, **Days**, or **Weeks**.

**Important:** This setting is CaSe-SeNsItIvE.

5 Save the file under its original filename.

6 Restart the "Wonderware Mobile Reporting Connector Service."

## Maximum Data Points

The number of data points that the service sends to the SmartGlance application in one "batch" is set at a default of 1000. This value can be modified, which is helpful if the service processes the data, but the SmartGlance application does not receive it. To modify this setting, take the steps below.

1 Shut down the “Wonderware Mobile Reporting Connector Service.”

2 Open the "WWMobileReportingConnectorService.exe.config" file, located in the directory to which the Application Server was installed (by default, "C:\Program Files\Wonderware\MobileReportingConnector"), in a text editor (like Notepad).

3 Find the following section:

```
<add key="MaxDataPoints" value="1000"/>
```

4 Modify the setting as desired.

5 Save the file under its original name.

6 Restart the "Wonderware Mobile Reporting Connector Service."

# Appendix A

# Mobile Reporting Connector and Windows SharePoint Services

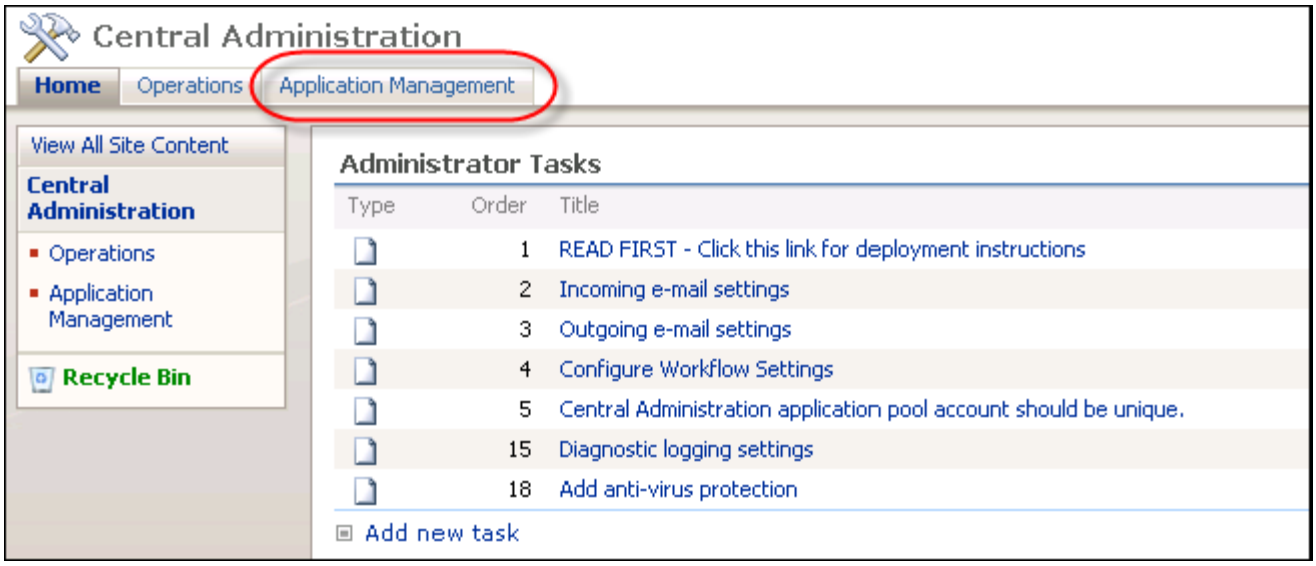
This Appendix lists necessary steps for systems running both Mobile Reporting Connector (MRC) and the Windows SharePoint Service (WSS). Since both use the same port by default, the port must be changed within WSS.

**Note:** This information does not apply to the Windows SharePoint Server, but rather to the machine running the SharePoint **Services**.

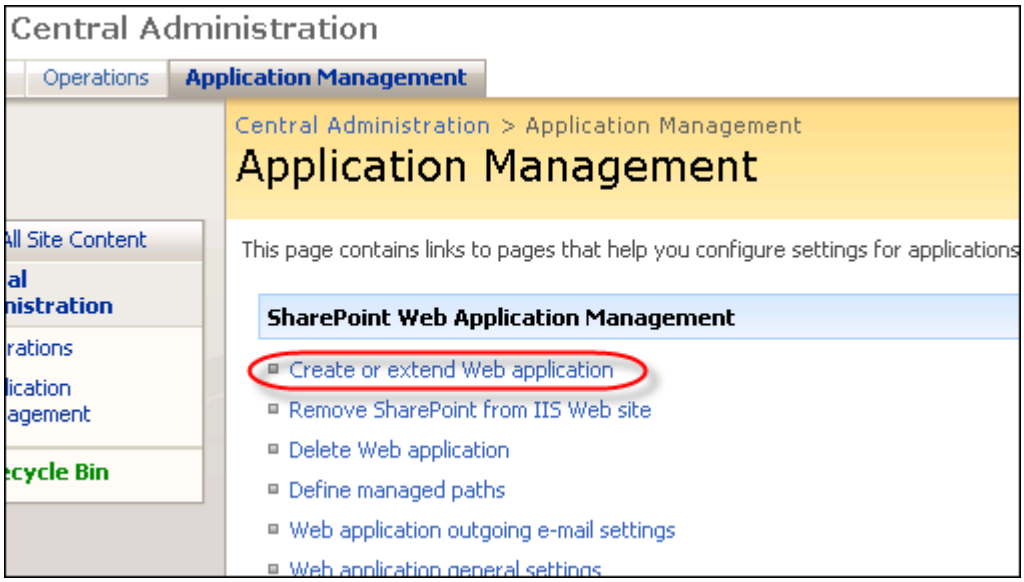
Perform the following steps on the computer running MRC and WSS:

**1** From the Windows START menu, select “Administrative Tools - SharePoint 3.0 Central Administration.” The “Central Administration” window appears.

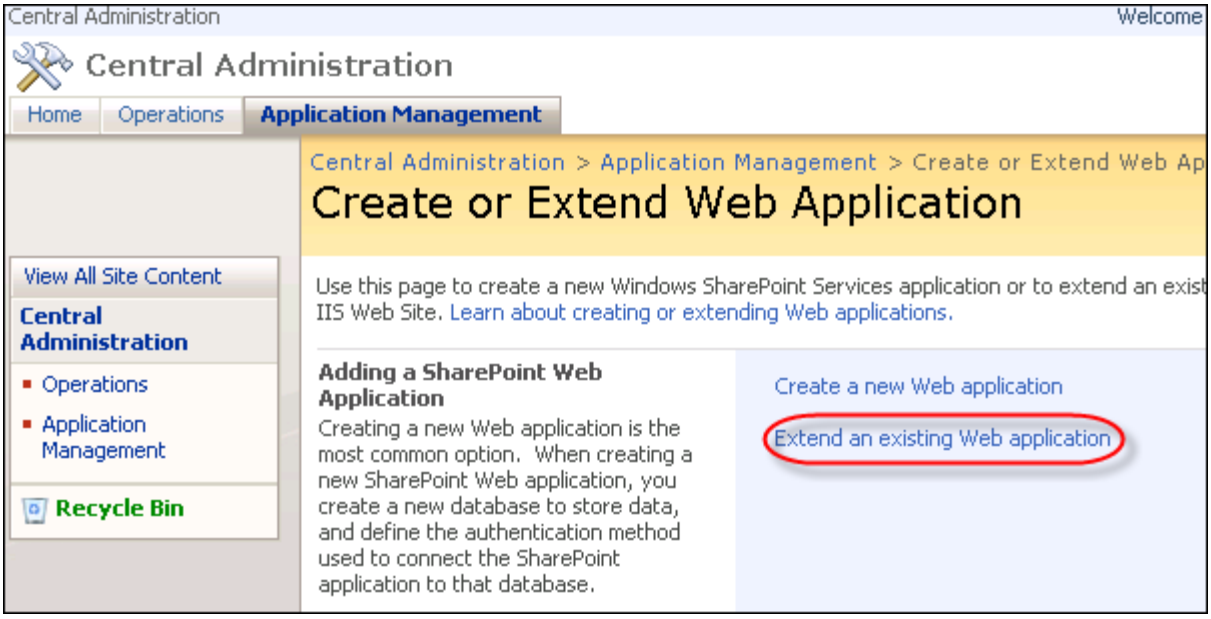
**Note:** The "Central Administration" option is labeled according to the version of Windows SharePoint Services installed. This example uses version 3.0.



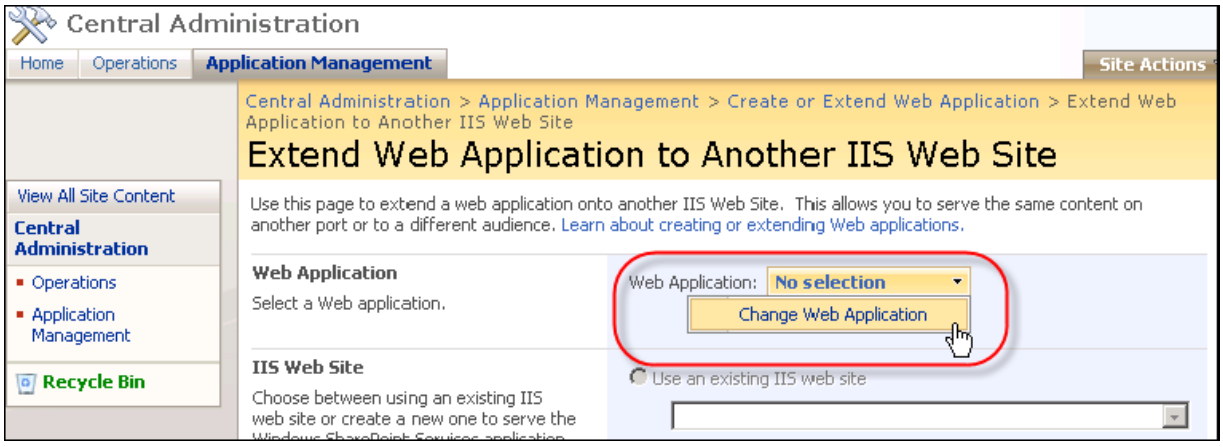

**2** Click the "Application Management" tab (pictured above). The "Application Management" window appears.


Central Administration
Operations
Application Management
Central Administration > Application Management
Application Management
This page contains links to pages that help you configure settings for applications
SharePoint Web Application Management
Create or extend Web application
Remove SharePoint from IIS Web site
Delete Web application
Define managed paths
Web application outgoing e-mail settings

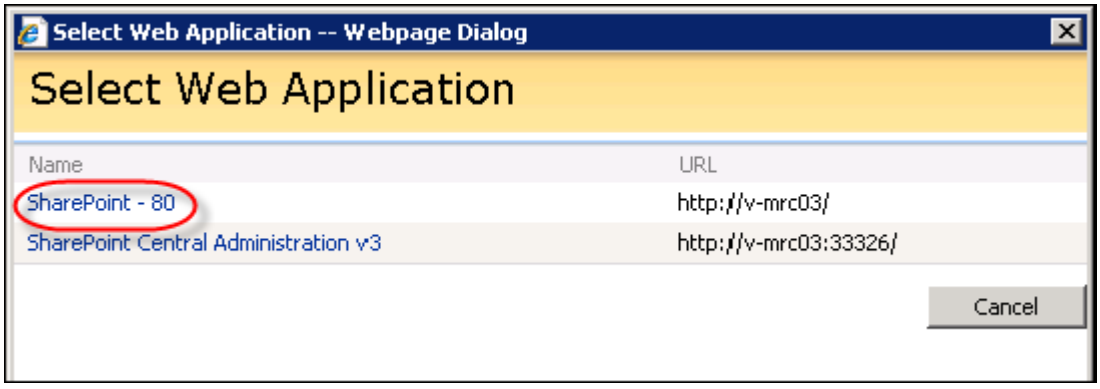
**3** Click the "Create or extend Web application" link (pictured above). The "Create or Extend Web Application" window appears.


Central Administration
Welcome
Central Administration
Home
Operations
Application Management
Central Administration > Application Management > Create or Extend Web Ap
Create or Extend Web Application
View All Site Content
Central Administration
Operations
Application Management
Recycle Bin
Use this page to create a new Windows SharePoint Services application or to extend an exist
IIS Web Site. Learn about creating or extending Web applications.
Adding a SharePoint Web Application
Creating a new Web application is the most common option. When creating a new SharePoint Web application, you create a new database to store data, and define the authentication method used to connect the SharePoint application to that database.
Create a new Web application
Extend an existing Web application

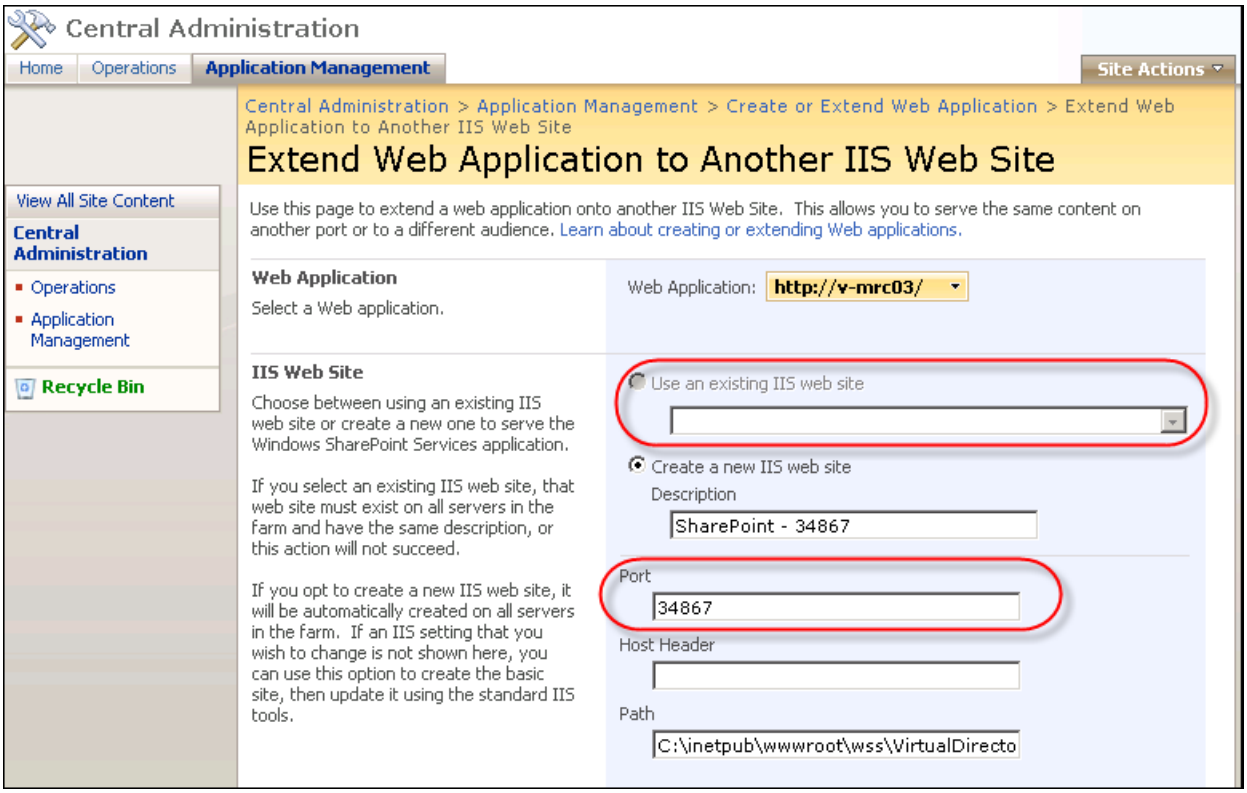
**4** Click the "Extend an existing Web application" link toward the right side of the window. The "Extend Web Application to Another IIS Web Site" window appears.


Central Administration
Home
Operations
Application Management
Site Actions
Central Administration > Application Management > Create or Extend Web Application > Extend Web Application to Another IIS Web Site
Extend Web Application to Another IIS Web Site
View All Site Content
Central Administration
Operations
Application Management
Recycle Bin
Use this page to extend a web application onto another IIS Web Site. This allows you to serve the same content on another port or to a different audience. Learn about creating or extending Web applications.
Web Application
Select a Web application.
Web Application: No selection
Change Web Application
IIS Web Site
Choose between using an existing IIS web site or create a new one to serve the
Use an existing IIS web site

**5** Click the "Web Application:" drop-down toward the right side of the window and select "Change Web Application." The "Select Web Application" pop-up window appears.




**6** Click the "Sharepoint - 80" link. The "Select Web Application" pop-up disappears, returning you to the "Extend Web Application to Another IIS Web Site" window.


Central Administration
Home
Operations
Application Management
Site Actions
Central Administration > Application Management > Create or Extend Web Application > Extend Web Application to Another IIS Web Site
Extend Web Application to Another IIS Web Site
View All Site Content
Central Administration
Operations
Application Management
Recycle Bin
Use this page to extend a web application onto another IIS Web Site. This allows you to serve the same content on another port or to a different audience. Learn about creating or extending Web applications.
Web Application
Select a Web application.
Web Application: http://v-mrc03/
IIS Web Site
Choose between using an existing IIS web site or create a new one to serve the Windows SharePoint Services application.
If you select an existing IIS web site, that web site must exist on all servers in the farm and have the same description, or this action will not succeed.
If you opt to create a new IIS web site, it will be automatically created on all servers in the farm. If an IIS setting that you wish to change is not shown here, you can use this option to create the basic site, then update it using the standard IIS tools.
Use an existing IIS web site
Create a new IIS web site
Description
SharePoint - 34867
Port
34867
Host Header
Path
C:\inetpub\wwwroot\wss\VirtualDirecto

Click the "Use an existing IIS web site" radio button, and enter the desired port number in the "Port" text field. Click "OK" when finished.

# Appendix B

# Special Installations

This appendix covers necessary modifications for installs that either:

1. Place the Mobile Reporting Connector's components on different computers
2. Place the Application Server component resides on a computer that needs to use a proxy server to access the Internet
3. Require a passcode change after installation.

## Split Installations

This section regards a necessary modification for installations placing the Web Server, and Application Server, component on separate computers. If your setup is configured in this fashion, please take the following steps.

1. Open the Mobile Reporting Connector Web Configuration's "index.html" file in a text editor (by default, it is located at "C:\inetpub\wwwroot\MobileReportingConnector\index.html").
2. Find section near the bottom containing many "`param name`" entries. If the text shown below does not exist in this section, insert it between any two "`param name`" type entries. Then, change the text "localhost" to the computer name of the machine to which the Service component is installed.

```
<param name="initParams" value="host=localhost, port=8000"/>
```

**Tip:** If you cannot connect after making this modification, please check the Windows Firewall on the Application Server Component computer for an appropriate exception.

3 Save the file under its original name. The Web Configuration interface is now ready for use.

# Changing the Passcode

If the valid Passcode changes after Mobile Reporting Connector is installed, you may change the passcode it uses by following the steps below.

1 Open the "IOM.SGSender.Config" file, located in the Application Server's installation directory (by default, "C:\Program Files\Wonderware\MobileReportingConnector"), in a text editor (such as Notepad).

2 Change the <Passcode> value, shown in the example below, to the new Passcode value.

```
<?xml version="1.0" encoding="UTF-8"?>

<SGReportSender>
    <OutputToFile>false</OutputToFile>
    <Passcode>XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX</Passcode>

</SGReportSender>
```

3 Save the file under its original filename.

# Using a Proxy Server

If the computer hosting the Application Server component must use a proxy server to connect to the Internet, you must modify the Application Server component to do the same by following the steps below.

1 Open the "WWMobileReportingConnectorService.exe.config" file, located in the Application Server's installation directory, in a text editor (such as Notepad.

2 Find the text:

```
useDefaultWebProxy="true"
```

3 Change "true" to "false" and then add:

```
proxyAddress="http://address:port"
```

where "address" is the address, and "port" is the port, of the proxy.

When done the example will look similar to the following:

```
useDefaultWebProxy="false"
proxyAddress="http://yyz.ca:2112"
```

4 Save the file under its original filename.

# Appendix C

# Troubleshooting

This appendix covers troubleshooting steps that help to resolve the most commonly experienced problems with Mobile Reporting Connector setup.

## Cannot Access Connector Website

If you cannot connect to the Mobile Reporting Connector's configuration website, check the following areas:

1. Is it an IIS problem?
   - **a** Check that other websites hosted by IIS are working.
   - **b** Is Sharepoint installed? See Appendix A, "Mobile Reporting Connector and Windows SharePoint Services."
   - **c** Follow error messages to the problems they indicate. If you are receiving HTTP 500 errors, open Internet Explorer, access "Internet Options," open the "Advanced" tab, and uncheck "Show Friendly HTTP error messages."
   - **d** Ensure that you can browse to the file directly at "<drive>:\inetpub\wwwroot\MobileReportingConnector\Index.html"
   - **e** Ensure that Silverlight is installed.
2. Is it an application problem with the Connector?
   - **a** Ensure that the "Wonderware Mobile Reporting Connector Service" service is started.
   - **b** Ensure that the user associated with this service is an administrative user

c Try the default log in of **admin** with password **admin**.

3 Ensure the Web Service is accessible by testing this URL (with port modifications as necessary:

`http://localhost:8000/DataReportConfig`

4 If all else fails, check the XML configuration files located in the Program Files directory. While edits to these files are not supported, viewing them may give insight into a particular problem:

- IOM. ReportInstances.config
- IOM.Schedules.config
- WWMobileReportingConnectorService.config

# Error Code 2104 on Connector Website

If Silverlight displays an error of "Code: 2104," this indicates that the Silverlight MIME filetypes (*.xaml, *.xap, *.xbap) are not properly registered. To solve this problem, take the steps below.

1 Open IIS on the server, and open "HTTP Headers."

2 Click "Mime Types."

3 Click "Add New" and add the following "Extension - Mime Type" entries:

.xaml – application/xaml+xml

.xap – application/x-silverlight-app

.xbap – application/x-ms-xbap

4 Click "Apply."

# Reports Not Sent to SmartGlance API

If the Mobile Reporting Connector has been configured and reports are not being sent, try the following:

1 If a report's "Report Refresh" interval is significantly longer than its "Data Frequency" value, the service may be trying to fetch more data than the it was designed to handle. In this case, either a Buffer Overflow error, or a timeout, occurs, and the data is not sent to the SmartGlance API.. Try making the "Report Refresh" interval shorter, and/or the "Data Frequency" interval longer.

2 Check the SMC Log file for Errors

3 Use the "Output to XML" option , as described in Chapter 2, "Setup." Review the XML output for clues.

4 If your network requires the use of a proxy server, see "Using a Proxy Server" on page 44.

5 For Tag reports, check that the Historian is up and running.

6 Check firewall and port exceptions to ensure that the firewall is not preventing the connection:

- Port Range 49152 to 65535: Used by “WWMobileReportingConnectorService.exe” and “iexplore.exe”

**Note:** The Connector relies on Windows to provide an available port within the “default dynamic port range for TCP/IP.” The default range in Win 2008 is between 49152 to 65535. This range can be severely restricted for security reasons; check with your site administrator to see if this may be the problem.

- Port 443 for SSL Communication to the SmartGlance Hosted Server

# Reports Not Published to Mobile Device

1 Check the settings on your mobile device to ensure that the report being looked for is turned “ON.”

2 Tap the “refresh” button in the application to ensure you have the latest results. Even with automatic refresh enabled, the application does not automatically download the content.

3 Ensure that the report you are requesting actually has data to send. If no data is provided, the report may not appear. It may help to use the “Output to XML” option , as described in Chapter 2, "Setup." Review the XML output for clues.

4 Ensure enough time has passed for at least three update intervals of the report to have gone by to ensure there is content available. Check the SMC Log to ensure that reports have been published successfully.

**Tip:** The minimum and default Report Refresh is 30 seconds.

5 If the report is of the Tabular type, run the SQL Query directly in SQL Server Management Studio to ensure that the expected results appear directly in SQL Server.

6 If this report is of the Tag type, run a query directly against the Historian to verify that data is available and is being received in good quality (OPC Value of 192).

7 Ensure that the registered User (e-mail address) is designated to receive this report either explicitly as a single user or as part of a group distribution list.

8 If the service is sending too much information to the SmartGlance application, it may also cause a Buffer Overflow or timeout, and prevent the receipt of information by the SmartGlance application. Try adjusting the MaxDataPoints setting (see "Maximum Data Points" on page 37) to prepare smaller “chunks” of information for the SmartGlance API.

# Notes: Debug Tools and Logs

Refer to "Additional Settings" on page 36 for information regarding settings which may address some issues.

All errors, warnings, and informational messages generated by the Connector are written to the Wonderware System Management Console (SMC).

The Windows Event Viewer application, and System Logs, are useful since issues can be recorded by the operating system.

Check IIS Trace Logs if you cannot resolve issues accessing the Connector configuration site.

The Mobile Reporting Connector uses Windows Communication Foundation (WCF) to POST messages via HTTP to the SmartGlance API. WCF Tracing can be turned on to capture the traffic between the Mobile Connector Service and the SmartGlance API. Refer to (http://msdn.microsoft.com/en-us/library/ms733025.aspx) for more details about WCF logging.

Use an HTTP sniffer, like Fiddler (see http://www.fiddler2.com), to capture real-time messages from Mobile Connector to the SmartGlance API, and the responses from the API. Since the Mobile Connector uses HTTPS to encrypt messages, be sure to refer to this page (http://www.fiddler2.com/Fiddler/help/httpsdecryption.asp).